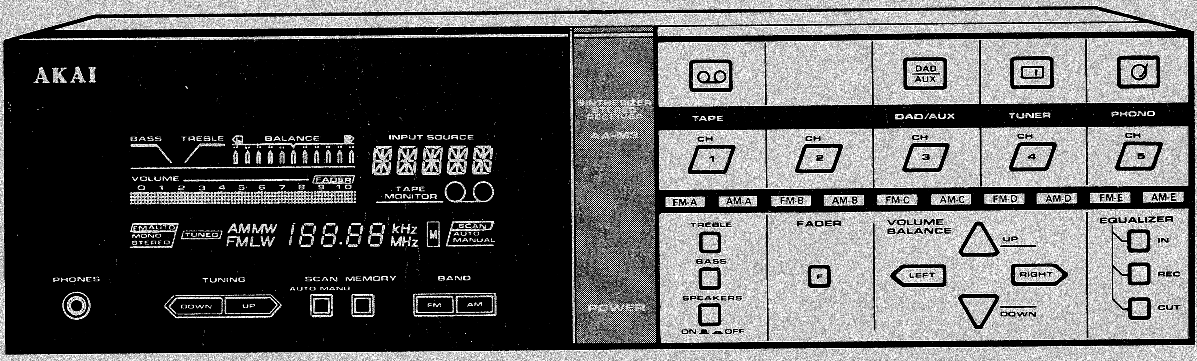
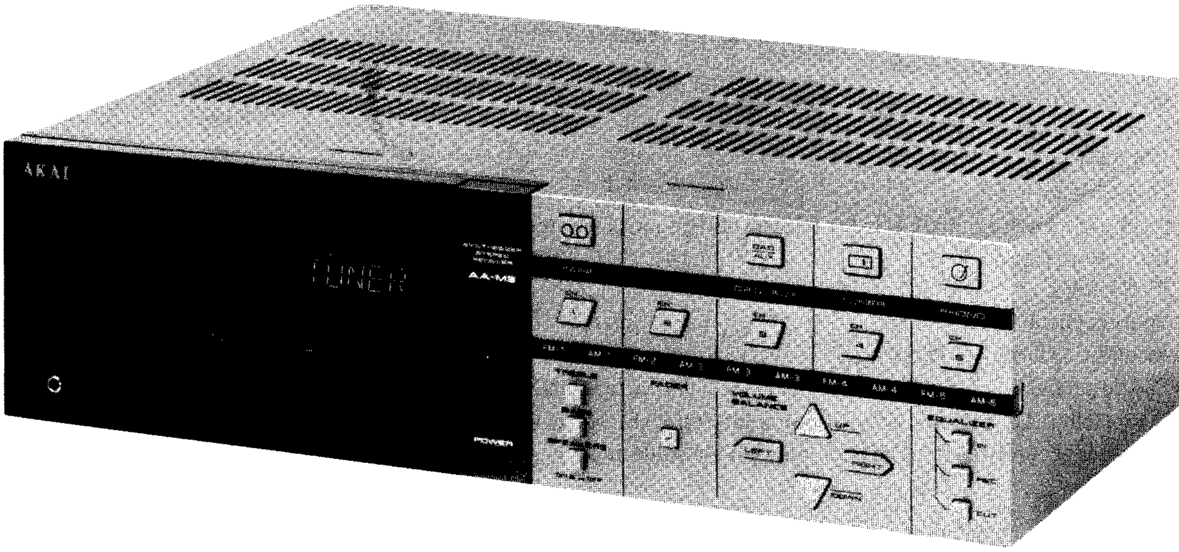
# AKAI SERVICE MANUAL


AKAI
BASS
TREBLE
BALANCE
INPUT SOURCE
VOLUME
FADER
TAPE MONITOR
FM AUTO
MONO
STEREO
TUNED
AMMW
FMLW
188.88
kHz
MHz
M
SCAN
AUTO
MANUAL
PHONES
TUNING
DOWN
UP
SCAN MEMORY
AUTO MANU
BAND
FM
AM
SYNTHESIZER STEREO RECEIVER
AA-M3
POWER
DAD AUX
TAPE
DAD/AUX
TUNER
PHONO
CH 1
CH 2
CH 3
CH 4
CH 5
FM-A
AM-A
FM-B
AM-B
FM-C
AM-C
FM-D
AM-D
FM-E
AM-E
TREBLE
BASS
SPEAKERS
ON
OFF
FADER
F
VOLUME BALANCE
UP
LEFT
RIGHT
DOWN
EQUALIZER
IN
REC
CUT

*MC-Service*

## SYNTHESIZER STEREO RECEIVER

## MODEL AA-M3



# SYNTHESIZER STEREO RECEIVER

# MODEL AA-M3

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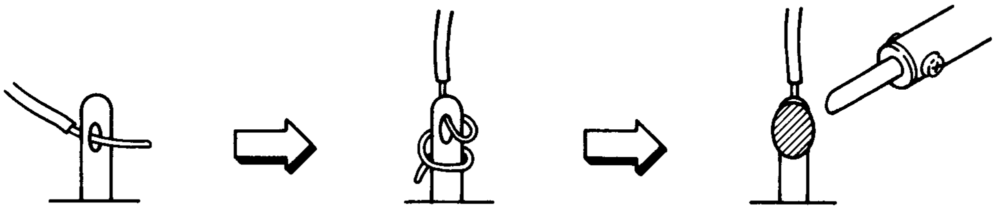
# SAFETY INSTRUCTIONS

## SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks. line-in-out jacks etc.)

## PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.
10. Voltage Conversion
    Models for Japan, Canada, USA, Europe, UK and Australia are not equipped with this facility. Each machine is preset at the factory according to destination, but some machines can be set to 110V, 120V, 220V or 240V as required. If Voltage Conversion on your machine is possible,
    1) Disconnect the power cord.
    2) Turn the Voltage Selector located on the rear panel with a screwdriver until the correct voltage is indicated. (Refer to Fig. 1)

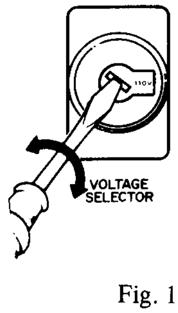


Fig. 1

## SECTION 1

# SERVICE MANUAL

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**For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.**

# I. SPECIFICATIONS

## FM TUNER SECTION

| | |
|---|---|
| TUNING FREQUENCY RANGE | 87.5 MHz to 108 MHz |
| USABLE SENSITIVITY | 16.2 dBf |
| QUIETING SENSITIVITY (S/N=50 dB) Mono/ST | 21.4 dBf/43.7 dBf |
| CAPTURE RATIO | 1.5 dB |
| SELECTIVITY (400 kHz) | 70 dB |
| IMAGE REJECTION | 45 dB |
| IF REJECTION | 90 dB |
| SPURIOUS REJECTION | 90 dB |
| AM SUPPRESSION | 60 dB |
| SUB CARRIER SUPPRESSION | 60 dB |
| S/N (Mono/ST) | 65 dB/60 dB |
| T.H.D. (Mono/ST) | 0.14% |
| STEREO SEPARATION (1 kHz) | 45 dB |

## AM TUNER SECTION

| | |
|---|---|
| TUNING FREQUENCY RANGE | 520 to 1,610 kHz (USA and Canada)<br>522 to 1,611 kHz (Others) |
| USABLE SENSITIVITY (Bar) | 300 μV/m |
| SELECTIVITY | 40 dB |
| IMAGE REJECTION | 50 dB |
| IF REJECTION | 55 dB |
| S/N RATIO | 40 dB |
| T.H.D. | 1% |
| STATION MEMORY BACK-UP | 20 Days |
| FREQUENCY RANGE | 137 kHz to 362 kHz |
| USABLE SENSITIVITY (IHF) | 800 μV/m |
| SELECTIVITY (IHF) | 35 dB |
| IMAGE REJECTION | 45 dB |
| IF REJECTION | 55 dB |
| SIGNAL TO NOISE RATIO | 35 dB |

## POWER AMPLIFIER SECTION

| | | |
|---|---|---|
| RATED POWER OUTPUT (2 channels Driven) | | 8 ohms<br>20 to 20,000 Hz: 2 × 25W/0.05% |
| S/N (IHF-A) | PHONO | 73 dB |
| | AUX | 93 dB |
| RESIDUAL NOISE (8 ohms) | | 0.5 mV |
| CHANNEL SEPARATION (IHF, 1 kHz) | | 45 dB |
| DAMPING FACTOR (1 kHz, 8 ohms) | | 50 |
| AMPLICABLE SPEAKER IMPEDANCE | | 8 to 16 ohms |

## PRE-AMPLIFIER SECTION

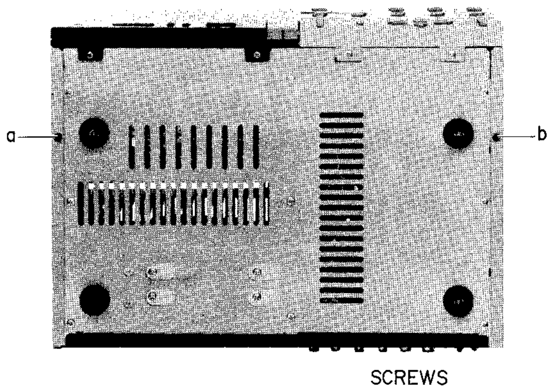
| | | |
|---|---|---|
| INPUT SENSITIVITY/IMPEDANCE | PHONO | 2.5 mV/47 kohms |
| | TUNER | 150 mV/47 kohms |
| OUTPUT LEVEL | TAPE REC | 150 mV |
| FREQUENCY RESPONSE | PHONO (RIAA Deviation) | ±0.5 dB (20 to 20,000 Hz) |
| | TUNER, AUX, TAPE | 10 Hz to 80 kHz +0, −3 dB |
| TONE BOOST | BASS | 5.5 dB (100 Hz) |
| | TREBLE | 6.0 dB (10 kHz) |
| POWER REQUIREMENTS | | 100V, 50/60 Hz for Japan<br>120V, 60 Hz for USA & Canada<br>220V, 50 Hz for Europe except UK<br>240V, 50 Hz for UK & Australia<br>110V/120V/220V/240V, 50/60 Hz switchable for other countries |
| POWER CONSUMPTION | | JPN 70W, CSA 100W, AAL 70W, U/T 95W |
| DIMENSIONS | | 350(W) × 98(H) × 270(D) mm<br>(13.8 × 3.9 × 10.6 inches) |
| WEIGHT | | 5.3 kg (11.7 lbs) |

*** For improvement purposes, specifications and design are subject to change without notice.**

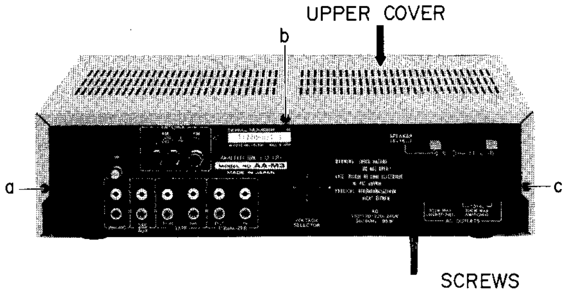
# II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

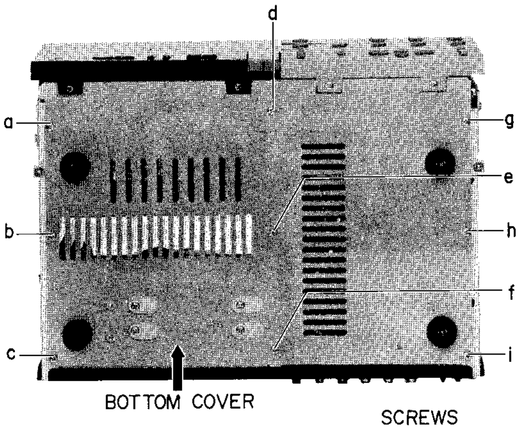
1



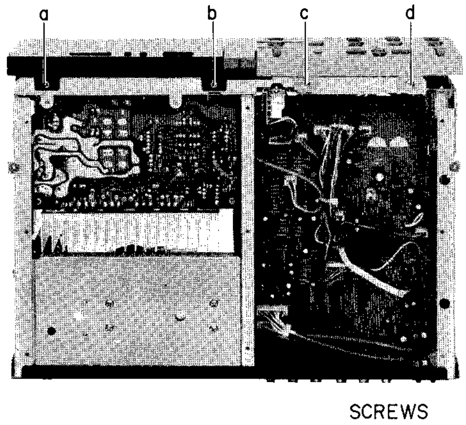
2


UPPER COVER
b
a
c
SCREWS

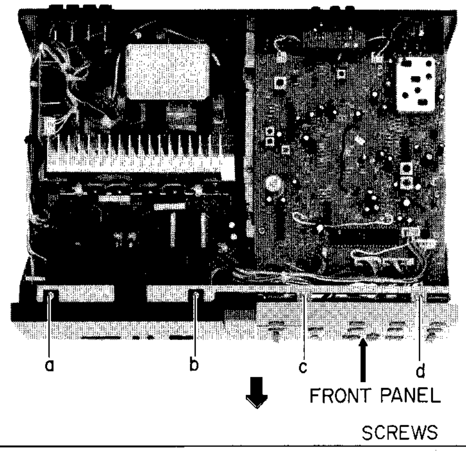
3


d
a
g
e
b
h
f
c
i
BOTTOM COVER
SCREWS

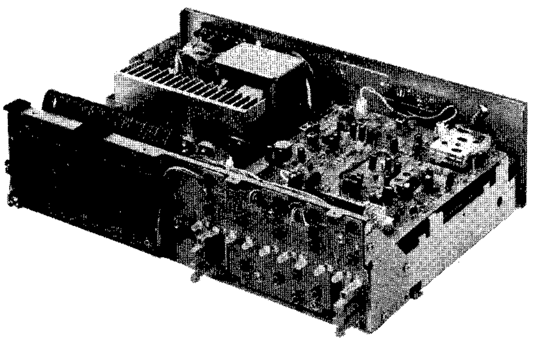
4


a
b
c
d
SCREWS

5


a
b
c
d
FRONT PANEL
SCREWS

6



# III. CONTROLS

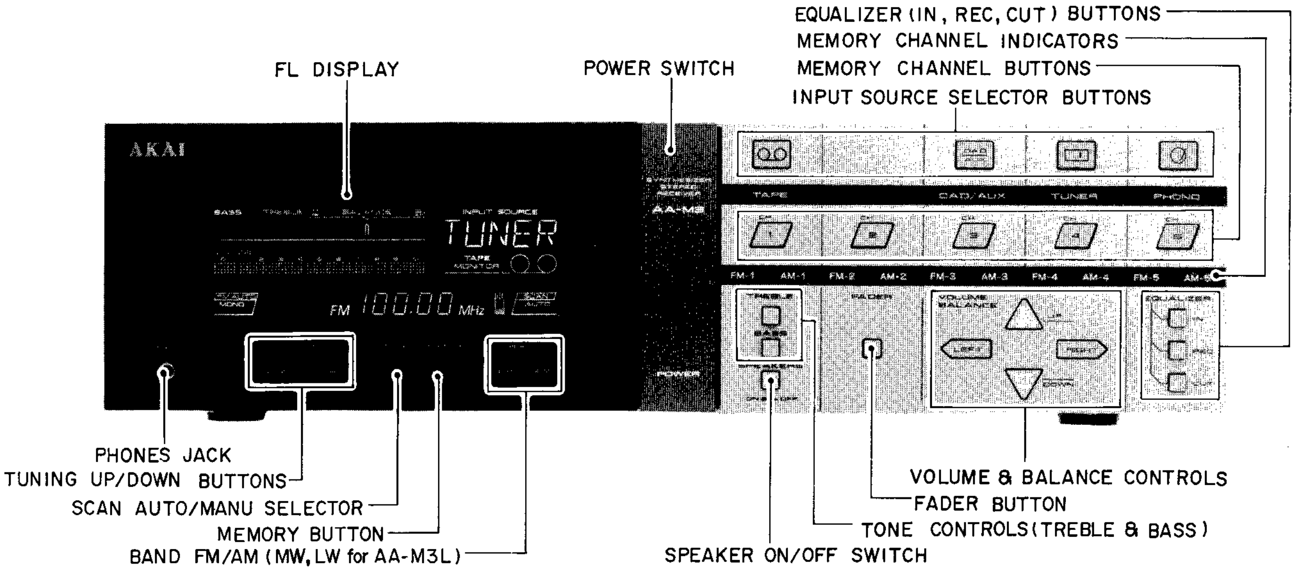

EQUALIZER (IN, REC, CUT) BUTTONS
MEMORY CHANNEL INDICATORS
FL DISPLAY
POWER SWITCH
MEMORY CHANNEL BUTTONS
INPUT SOURCE SELECTOR BUTTONS
AKAI
TUNER
FM 100.00 MHz
TAPE
CD/AUX
TUNER
PHONO
FM-1
AM-1
FM-2
AM-2
FM-3
AM-3
FM-4
AM-4
FM-5
AM-5
AA-M3
POWER
PHONES JACK
TUNING UP/DOWN BUTTONS
SCAN AUTO/MANU SELECTOR
MEMORY BUTTON
BAND FM/AM (MW, LW for AA-M3L)
VOLUME & BALANCE CONTROLS
FADER BUTTON
TONE CONTROLS (TREBLE & BASS)
SPEAKER ON/OFF SWITCH

Fig. 3-1

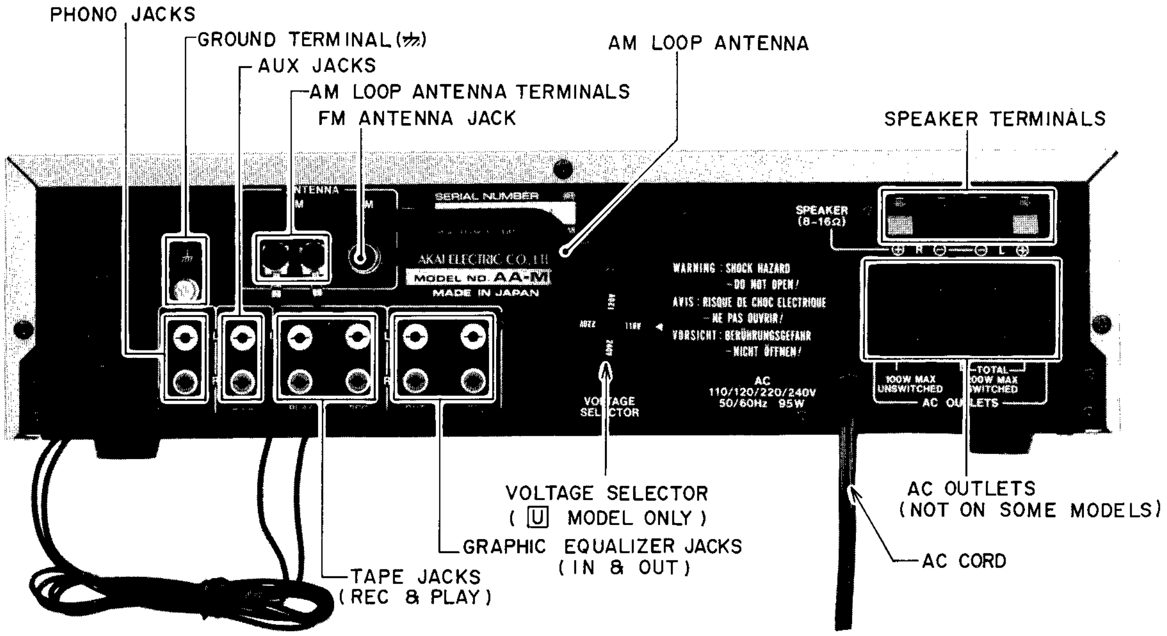

PHONO JACKS
GROUND TERMINAL (⏚)
AUX JACKS
AM LOOP ANTENNA TERMINALS
FM ANTENNA JACK
AM LOOP ANTENNA
SPEAKER TERMINALS
SERIAL NUMBER
AKAI ELECTRIC CO., LTD.
MODEL NO AA-M
MADE IN JAPAN
SPEAKER (8-16Ω)
WARNING : SHOCK HAZARD - DO NOT OPEN!
AVIS : RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR!
VORSICHT : BERÜHRUNGSGEFAHR - NICHT ÖFFNEN!
AC 110/120/220/240V 50/60Hz 95W
100W MAX UNSWITCHED
TOTAL 100W MAX SWITCHED
AC OUTLETS
VOLTAGE SELECTOR
VOLTAGE SELECTOR ( U MODEL ONLY )
AC OUTLETS (NOT ON SOME MODELS)
GRAPHIC EQUALIZER JACKS (IN & OUT)
AC CORD
TAPE JACKS (REC & PLAY)

Fig. 3-2

# IV. PRINCIPAL PARTS LOCATION

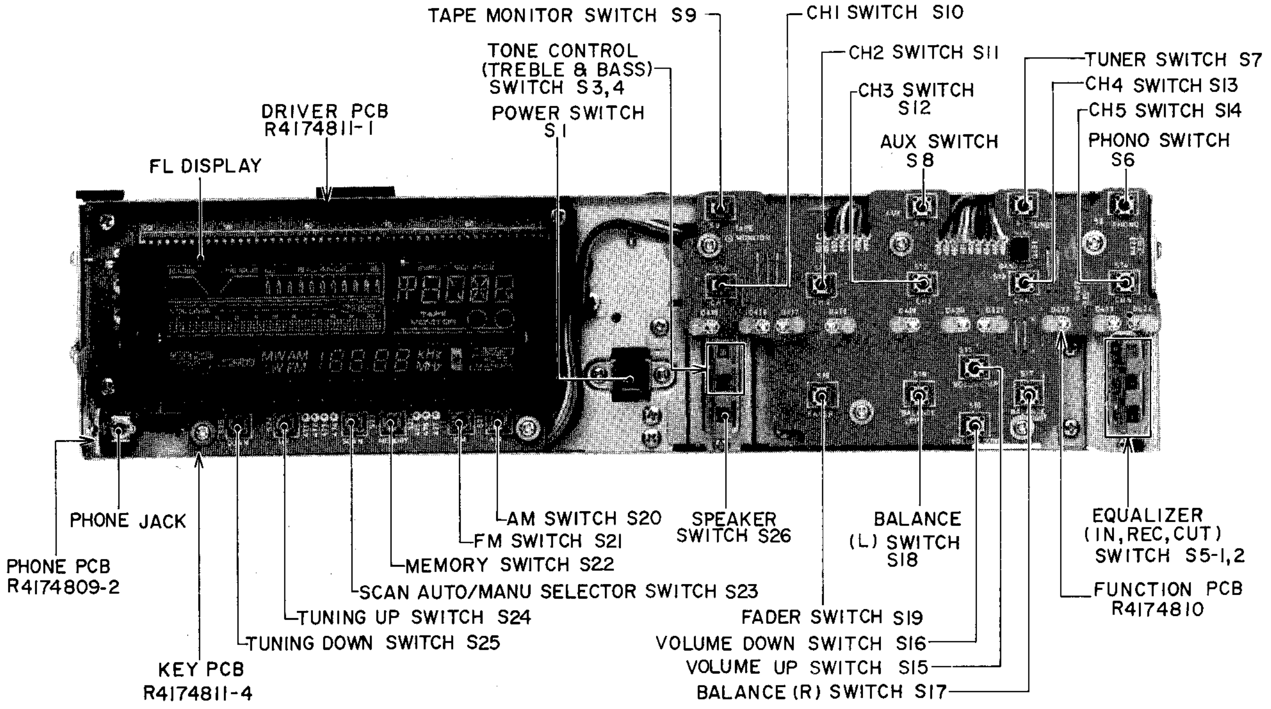

TAPE MONITOR SWITCH S9
CH1 SWITCH S10
TONE CONTROL (TREBLE & BASS) SWITCH S3,4
CH2 SWITCH S11
TUNER SWITCH S7
CH3 SWITCH S12
CH4 SWITCH S13
DRIVER PCB R4174811-1
POWER SWITCH S1
CH5 SWITCH S14
AUX SWITCH S8
PHONO SWITCH S6
FL DISPLAY
PHONE JACK
AM SWITCH S20
FM SWITCH S21
SPEAKER SWITCH S26
BALANCE (L) SWITCH S18
EQUALIZER (IN,REC,CUT) SWITCH S5-1,2
PHONE PCB R4174809-2
MEMORY SWITCH S22
SCAN AUTO/MANU SELECTOR SWITCH S23
FUNCTION PCB R4174810
TUNING UP SWITCH S24
FADER SWITCH S19
TUNING DOWN SWITCH S25
VOLUME DOWN SWITCH S16
KEY PCB R4174811-4
VOLUME UP SWITCH S15
BALANCE (R) SWITCH S17

Fig. 4-1 Front View

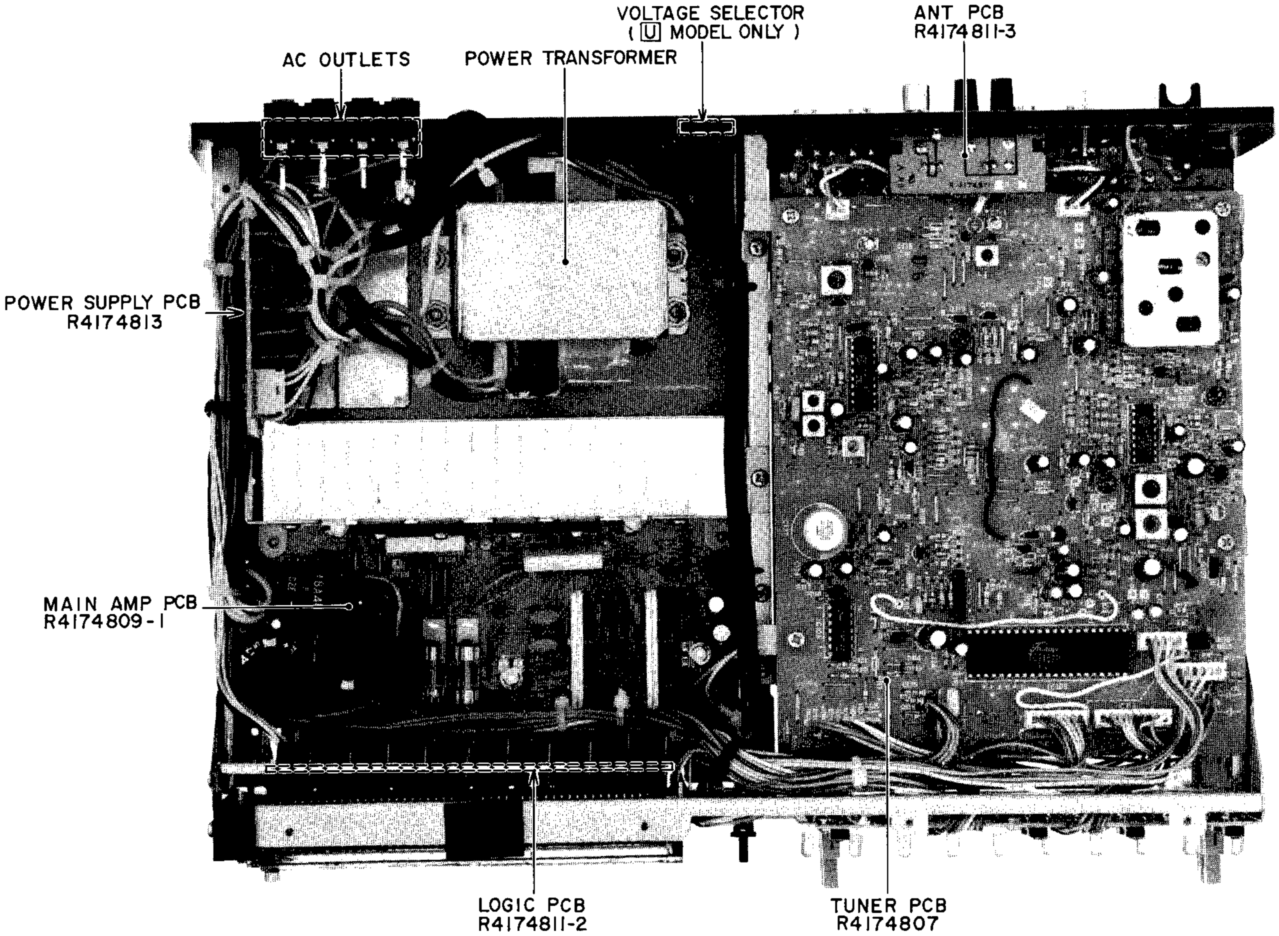

VOLTAGE SELECTOR ( U MODEL ONLY )
ANT PCB R4174811-3
AC OUTLETS
POWER TRANSFORMER
POWER SUPPLY PCB R4174813
MAIN AMP PCB R4174809-1
LOGIC PCB R4174811-2
TUNER PCB R4174807

Fig. 4-2 Top View

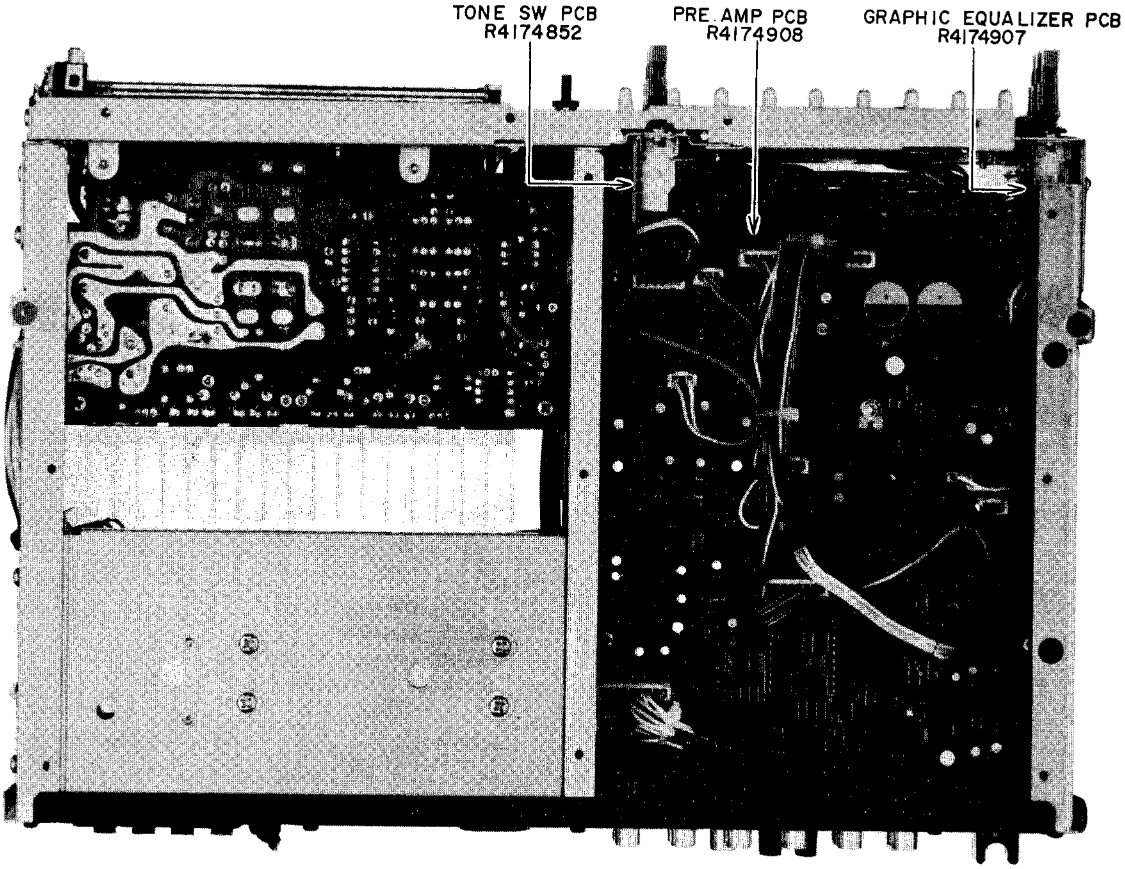

TONE SW PCB
R4174852
PRE AMP PCB
R4174908
GRAPHIC EQUALIZER PCB
R4174907

Fig. 4-3 Bottom View

# V. TUNER ADJUSTMENT

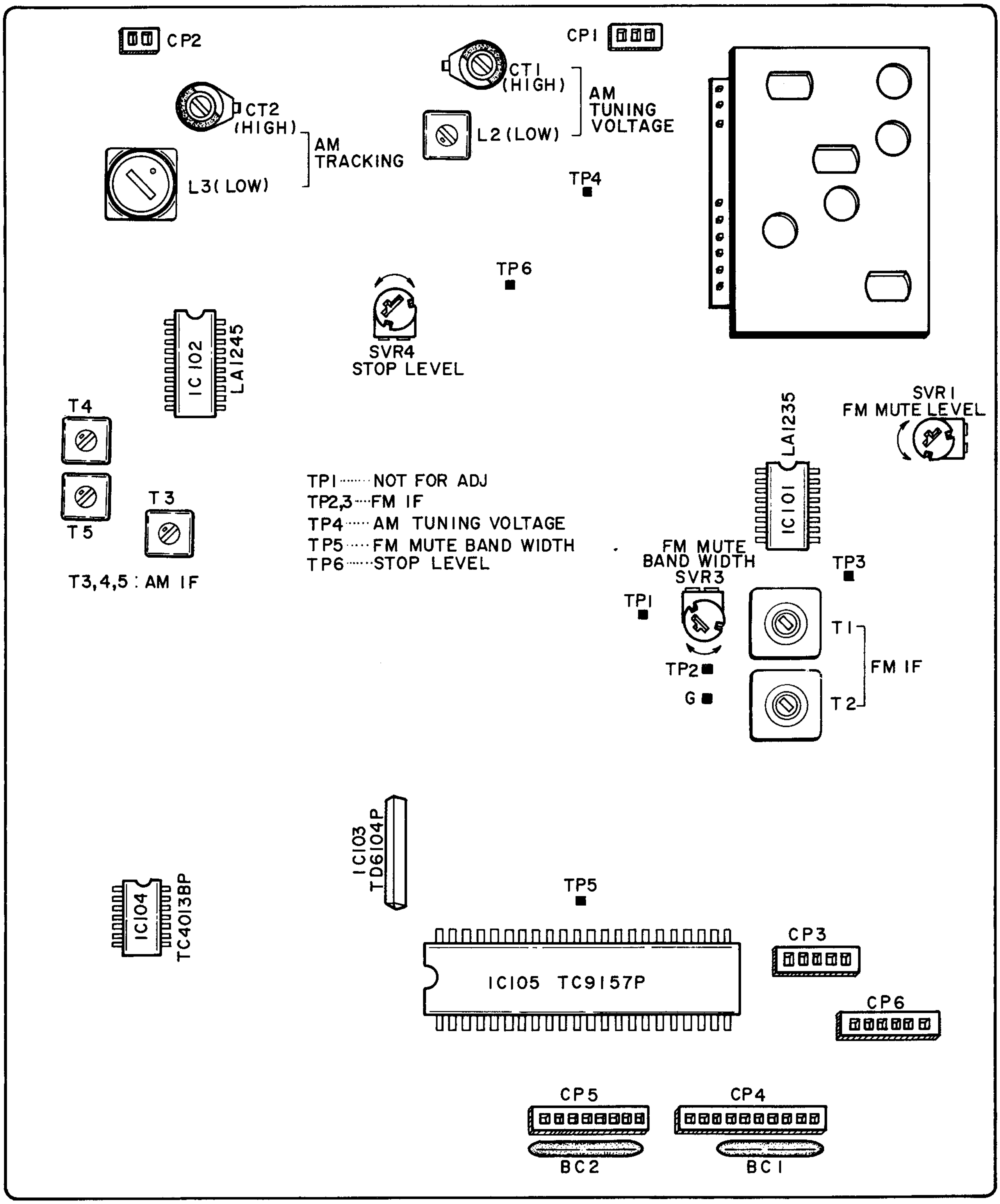

CP2
CP1
CT1 (HIGH)
CT2 (HIGH)
L2 (LOW)
AM TUNING VOLTAGE
AM TRACKING
L3 (LOW)
TP4
TP6
SVR4 STOP LEVEL
IC102 LA1245
T4
T5
T3
T3,4,5 : AM IF
TP1……NOT FOR ADJ
TP2,3……FM IF
TP4……AM TUNING VOLTAGE
TP5……FM MUTE BAND WIDTH
TP6……STOP LEVEL
LA1235
IC101
SVR1 FM MUTE LEVEL
FM MUTE BAND WIDTH SVR3
TP3
TP1
T1
T2
FM IF
TP2
G
IC103 TD6104P
IC104 TC4013BP
TP5
IC105 TC9157P
CP3
CP6
CP5
CP4
BC2
BC1
TUNER PCB

Fig. 5-1 Tuner P.C Board Adjustment Points

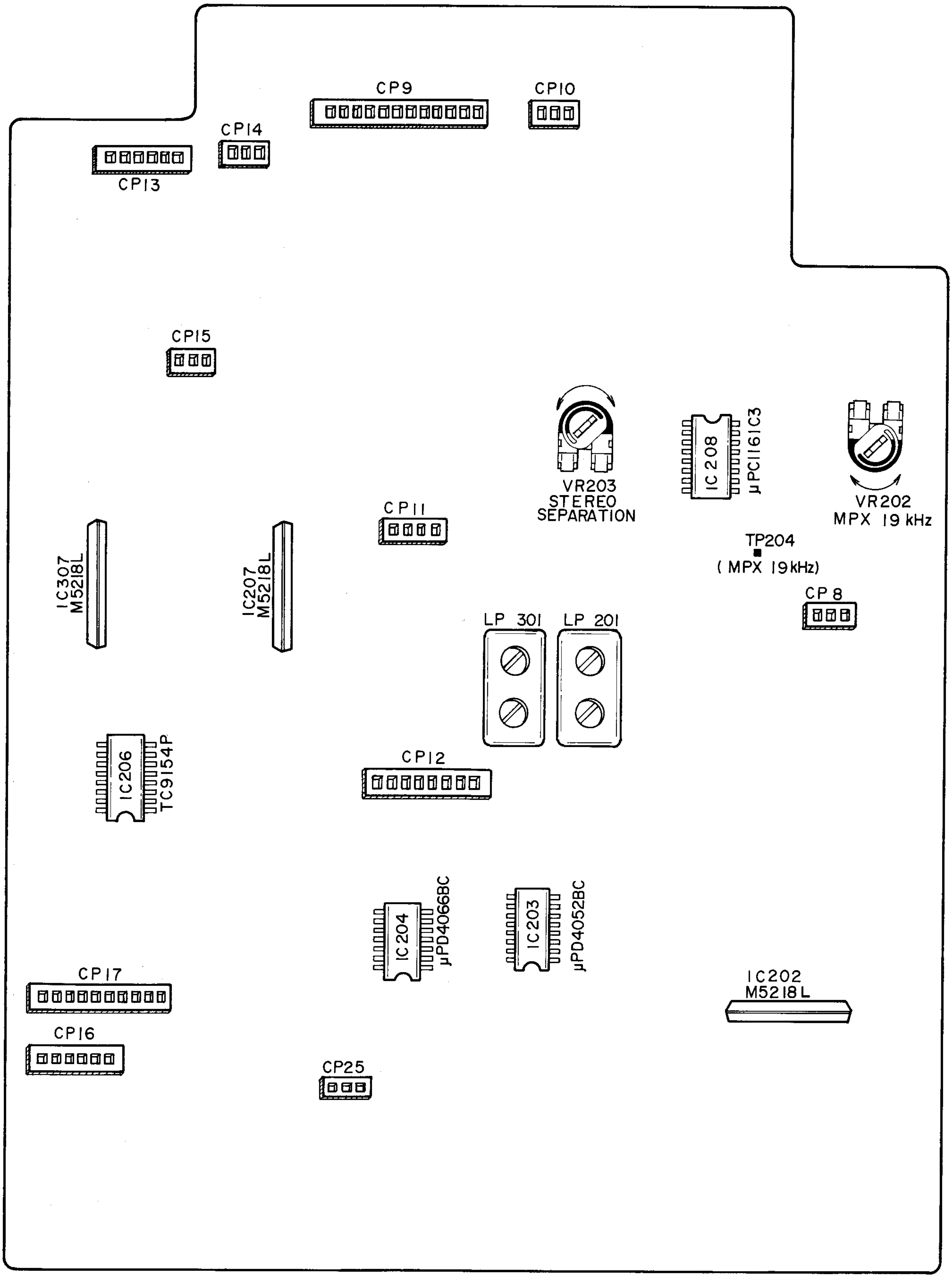

CP9
CP10
CP14
CP13
CP15
VR203
STEREO
SEPARATION
IC 208
µPC1161C3
VR202
MPX 19 kHz
TP204
( MPX 19kHz)
CP11
IC307
M5218L
IC207
M5218L
CP 8
LP 301
LP 201
IC206
TC9154P
CP12
IC204
µPD4066BC
IC203
µPD4052BC
CP17
IC202
M5218L
CP16
CP25
PRE AMP PCB

Fig. 5-2 Pre-amp P.C Board Adjustment Points

MC-Service

## 5-1. AM ADJUSTMENT (Refer to Figs. 5-1 and 5-2)

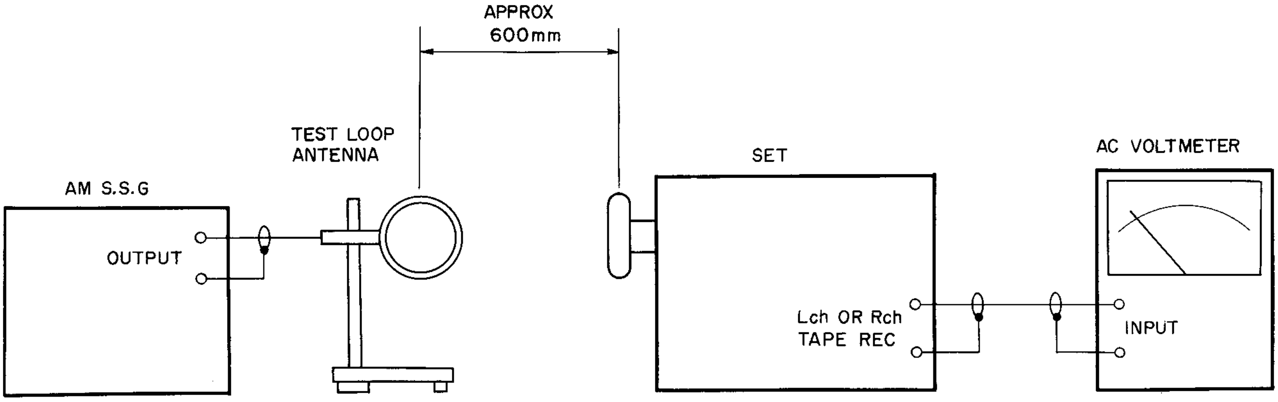
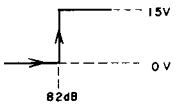


Fig. 5-3 AM Test Instruments Connections

| Step | Adjustment Item | Input from SSG | Adjustment Point | Result | Remarks |
|---|---|---|---|---|---|
| 1 | Tuning Voltage | | L2 | 1.30 ± 0.05V | 1) BAND to AM.<br>2) Tuning Display to 522(520) kHz.<br>3) Connect a Digital Voltmeter (DC RANGE) between TP-4 and GND. |
| | | | CT-1 | 7.90 ± 0.1V | 1) Tuning Display to 1611(1610) kHz. |
| 2 | AM IF | 450 kHz<br>120 dB | T3<br>T4<br>T5 | Maximum Output | 1) Tuning Display to 522(520) kHz.<br>2) Connect an AC Voltmeter to TAPE REC Terminal.<br>3) Adjust T3, T4 and T5 Alternately. |
| 3 | Low Range Sensitivity | 603(600)kHz<br>50 dB | L3 | Maximum Output | 1) Tuning Display to 603(600) kHz.<br>2) Connect an AC Voltmeter to TAPE REC Terminal. |
| 4 | High Range Sensitivity | 1404(1400)kHz<br>50 dB | CT-2 | Maximum Output | 1) Tuning Display to 1404(1400) kHz.<br>2) Connect an AC Voltmeter to TAPE REC Terminal. |
| 5 | Stop Level | 999 kHz<br>1000 kHz<br>1008 kHz<br>(See Note 2) | SVR4 |  | 1) Tuning Display to 999 kHz, 1000 kHz, or 1008 kHz. (See Note 2)<br>2) Connect a Digital Voltmeter (DC RANGE) between TP6 and GND.<br>3) Adjust SVR4 to the point which the voltage rises from 0V to 15V. |

**NOTE:** 1. The Frequencies indicated in ( ) are for USA and Canada Models.
2. 999 kHz for Japan Model
1000 kHz for USA and Canada Models
1008 kHz for Europe and Australia Models
3. The modulation rate of SSG is 30%.

## 5-2. FM ADJUSTMENT (Refer to Figs. 7, 8 and 10)

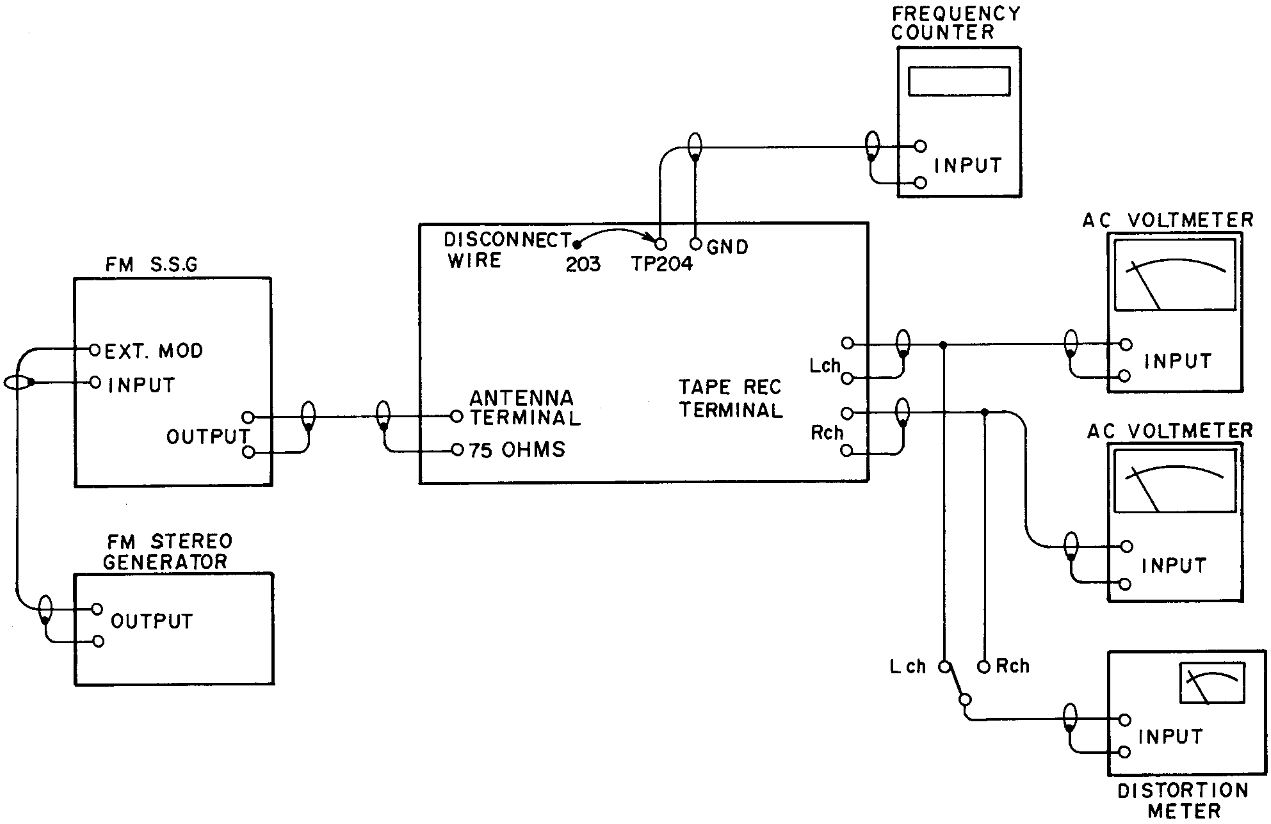
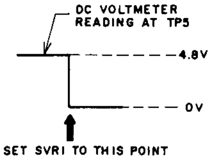
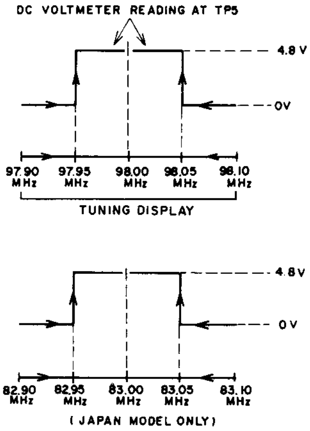

FREQUENCY COUNTER
INPUT
AC VOLTMETER
INPUT
AC VOLTMETER
INPUT
FM S.S.G
EXT. MOD
INPUT
OUTPUT
DISCONNECT WIRE
203
TP204
GND
ANTENNA TERMINAL
75 OHMS
TAPE REC TERMINAL
Lch
Rch
FM STEREO GENERATOR
OUTPUT
Lch
Rch
INPUT
DISTORTION METER

Fig. 5-4 FM Test Instruments Connections

| Step | Adjustment Item | Input from SSG | Adjustment Point | Result | Remarks |
|---|---|---|---|---|---|
| 1 | FM IF | 98.00(83.00)MHz<br>66 dB | T1 | 0 ± 5 mV | 1) BAND to FM.<br>2) Turn the SVR3 fully clockwise.<br>3) Tuning Display to 98.00(83.00) MHz.<br>4) Connect a Digital Voltmeter between TP2 and TP3.<br>5) Connect a Distortion meter to TAPE REC Terminal. |
| | | | T2 | Minimum Distortion | |
| 2 | MUTE Level Auto Stop Detection Signal | 98.00(83.00)MHz<br>18 dB | SVR1 |   DC VOLTMETER READING AT TP5<br>4.8V<br>0V<br>SET SVR1 TO THIS POINT | 1) Tuning Display to 98.00(83.00) MHz.<br>2) Connect a DC Voltmeter between TP5 and GND.<br>3) Adjust SVR1 to the point which the voltage drops from 4.8V to 0V. |

| Step | Adjustment Item | Input from SSG | Adjustment Point | Result | Remarks |
|---|---|---|---|---|---|
| 3 | FM Mute Band with | 98.00(83.00)MHz<br>60 dB | SVR3 |  DC VOLTMETER READING AT TP5<br>4.8 V<br>0V<br>97.90 MHz<br>97.95 MHz<br>98.00 MHz<br>98.05 MHz<br>98.10 MHz<br>TUNING DISPLAY<br>4.8V<br>0 V<br>82.90 MHz<br>82.95 MHz<br>83.00 MHz<br>83.05 MHz<br>83.10 MHz<br>( JAPAN MODEL ONLY ) | 1) Connect a DC Voltmeter between TP-5 and GND.<br>2) Adjust SVR3 so that the voltage rises from 0V to 4.8V when changing the Tuning Display from 97.90(82.90) MHz to 97.95(82.95) MHz.<br>3) Confirm that the voltage also rises from 0V to 4.8V when changing the Tuning Display from 98.10(83.10) MHz to 98.05(83.05) MHz. |
| 4 | MPX Free Running Frequency | 98.00(83.00)MHz<br>66 dB<br>MONO<br>Modulation<br>0% | VR202 (Pre-Amp P.C Board) | 19.0 ± 0.1 kHz | 1) Tuning Display to 98.00(83.00) MHz.<br>2) Disconnect a wire from TP204.<br>3) Connect a frequency counter between TP204 and GND. |
| 5 | Stereo Separation | 98.00(83.00)MHz<br>60 dB<br>1 kHz<br>(Stereo 100%)<br>Lch. [Rch.] Input | VR203 (Pre-Amp P.C Board) | Rch. [Lch.] output to Minimum | 1) Tuning Display to 98.00(83.00) MHz.<br>2) Connect an AC Voltmeter to TAPE REC Terminal. |
| 6 | Auto Stop | 97.982(82.982) MHz<br>60 dB<br>98.018(83.018) MHz<br>60 dB | Confirmation | Auto Stop at 98.00(83.00)MHz | 1) Tuning Mode to AUTO.<br>2) Push UP button and start searching from lower frequencies.<br>3) Push DOWN button and start searching from higher frequencies.<br>* If the Tuning Display does not stop at 98.00 (83.00) MHz, Readjust Step 1 and Step 3. |

**NOTE**: 1. The Frequency Indicated in ( ) are for Japan models.
2. The modulation rate of SSG is 75%, except for Step 4.
3. In Step 3, Tuning Mode must be in Manual mode.

## 5-3. MAIN AMPLIFIER ADJUSTMENT

### 5-3-1 IDLING CURRENT ADJUSTMENT

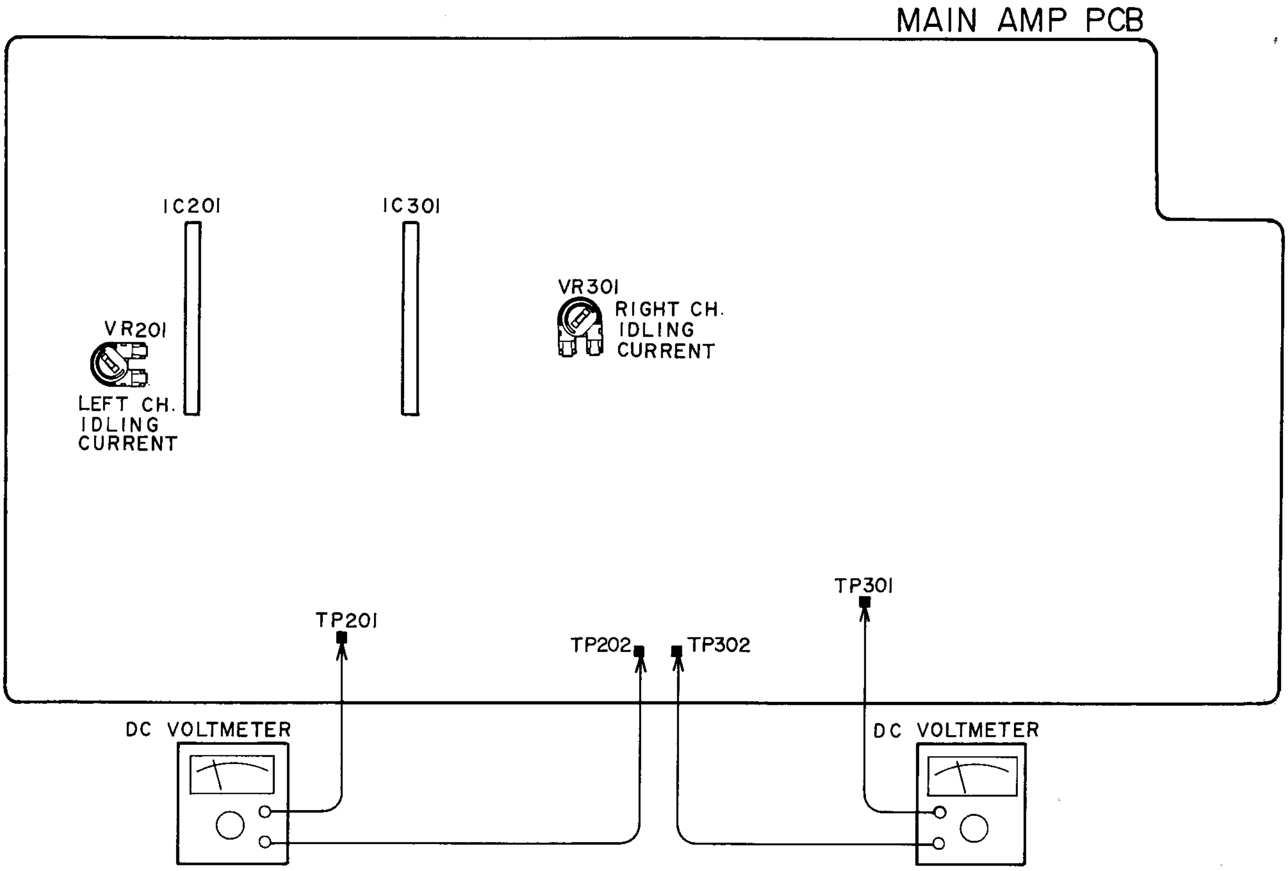

MAIN AMP PCB
IC201
IC301
VR201
LEFT CH.
IDLING
CURRENT
VR301
RIGHT CH.
IDLING
CURRENT
TP201
TP202
TP302
TP301
DC VOLTMETER
DC VOLTMETER

Fig. 5-5 Main Amplifier Adjustment Point

| Adjustment Item | Test Point | Adjustment Point | Result | Remarks |
|---|---|---|---|---|
| Idling Current | TP201, TP202<br>(LEFT CH.) | VR201 | 8 mV | 1) Set to Function = AUX,<br>Volume = minimum,<br>SP Load = none,<br>2) Connect a DC Voltmeter between TP201 and TP202. |
|  | TP301, TP302<br>(RIGHT CH.) | VR301 | 8 mV | 3) Connect a DC Voltmeter between TP301 and TP302. |

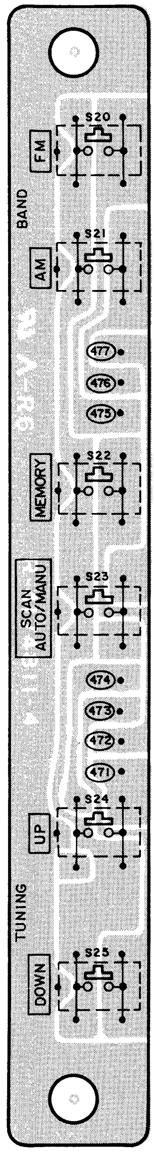
# VI. CLASSIFICATION OF VARIOUS P.C BOARDS

## 6-1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

| P.C Board Title | P.C Board Number |
|---|---|
| TUNER P.C Board | R4174807 |
| PRE AMP P.C Board | R4174908 |
| MAIN AMP P.C Board | R4174809-1 |
| POWER SUPPLY P.C Board | R4174813 |
| DRIVE P.C Board | R4174811-1 |
| LOGIC P.C Board | R4174811-2 |
| FUNCTION P.C Board | R4174810 |
| G-EQUALIZER P.C Board | R4174907 |
| TONE SW P.C Board | R4174852 |
| KEY P.C Board | R4174811-4 |
| ANT P.C Board | R4174811-3 |
| PHONE P.C Board | R4174809-2 |
| LINE FILTER P.C Board E only | R4174869 |

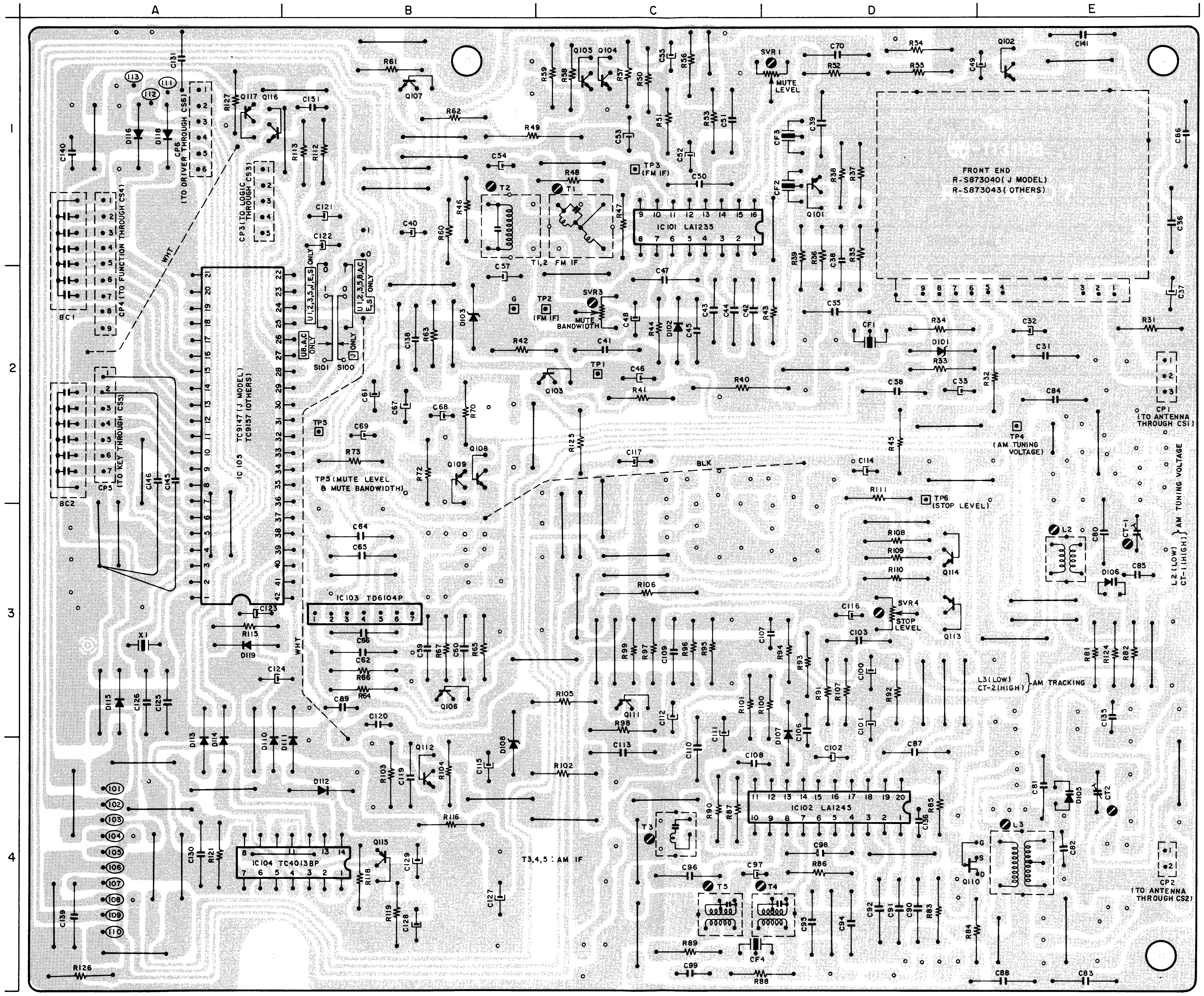
## 6-2. COMPOSITION OF VARIOUS P.C BOARDS

### 1) TUNER P.C BOARD (R4174807), KEY P.C BOARD (R4174811-4), ANT P.C BOARD (R4174811-3)



BAND
FM
S20
AM
S21
MEMORY
S22
SCAN AUTO/MANU
S23
TUNING
UP
S24
DOWN
S25
477
476
475
474
473
472
471

KEY PCB R-4174811-4



A
B
C
D
E
1
2
3
4
FRONT END
R-S873040( J MODEL)
R-S873043( OTHERS)
IC101 LA1235
IC102 LA1245
IC103 TD6104P
IC104 TC4013BP
IC105
TC9147(J MODEL)
TC9157(OTHERS)
CP1 (TO ANTENNA THROUGH CS1)
CP2 (TO ANTENNA THROUGH CS2)
CP3 (TO LOGIC THROUGH CS3)
CP4 (TO FUNCTION THROUGH CS4)
CP5 (TO KEY THROUGH CS5)
CP6 (TO DRIVER THROUGH CS6)
SVR1 MUTE LEVEL
SVR3 MUTE BANDWIDTH
SVR4 STOP LEVEL
TP1
TP2 (FM IF)
TP3 (FM IF)
TP4 (AM TUNING VOLTAGE)
TP5 (MUTE LEVEL & MUTE BANDWIDTH)
TP6 (STOP LEVEL)
T1,2 : FM IF
T3,4,5 : AM IF
L2 (LOW) CT-1 (HIGH) AM TUNING VOLTAGE
L3 (LOW) CT-2 (HIGH) AM TRACKING
U1,2,3,5,J,E,S ONLY
U1,2,3,5,R,A,C E,S ONLY
U8,A,C ONLY
J ONLY
S101
S100
X1
CF1
CF2
CF3
CF4
WHT
BLK
101
102
103
104
105
106
107
108
109
110
111
112
113

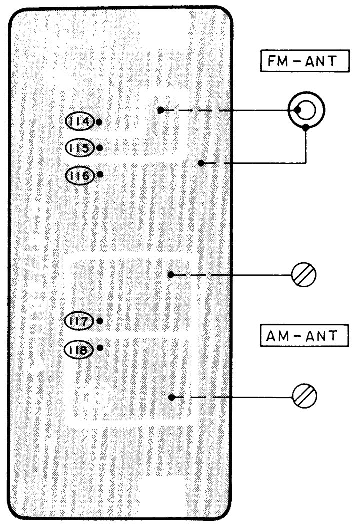
TUNER PCB (R4174807)

LOCATION OF COMPONENTS

IC
IC101.........1C
IC102.........4D
IC103.........3B
IC104.........4B
IC105.........2A

TR
Q101..........1D
Q102..........1E
Q103..........2C
Q104,105......1C
Q106..........3B
Q107..........1B
Q108,109......2B
Q110..........4E
Q111..........3C
Q112..........4B
Q113,114......3D
Q115..........4B
Q116,117......1A

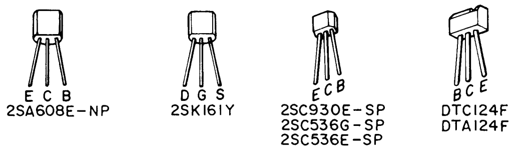
TERMINAL
CP1...........2E
CP2...........4E
CP3,4,6.......1A
CP5...........2A
(101) to (110) ...4A
(111) to (113) ...1A



FM-ANT
AM-ANT
114
115
116
117
118

ANT PCB R-4174811-3

Q101, 106 --------2SC930E-SP
Q102, 104, 105, 108
109, 113, 114 ------2SC536G-SP
Q103, 111, 112 ------2SC536E-SP
Q107, 116 ---------DTC124F
Q110 ---------- 2SK161Y
Q115 ---------- 2SA608E-NP
Q117 ---------- DTA124F



E C B
2SA608E-NP
D G S
2SK161Y
E C B
2SC930E-SP
2SC536G-SP
2SC536E-SP
B C E
DTC124F
DTA124F

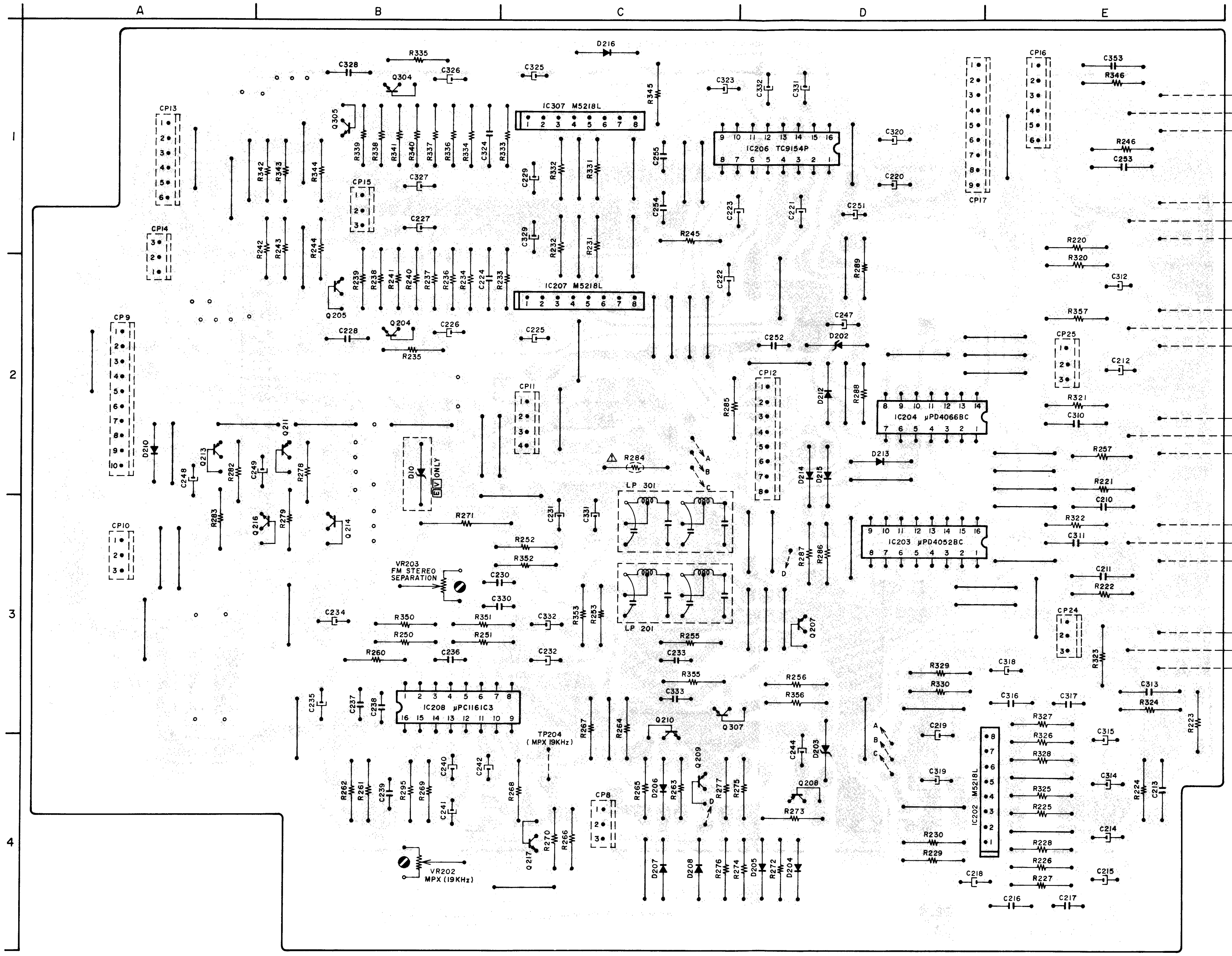
## 2) PRE AMP P.C BOARD (R4174908), TONE SW P.C BOARD (R4174852), G-EQUALIZER P.C BOARD (R4174907)

LOCATION OF COMPONENTS

TR
Q204....B2
Q205....B2
Q207....D3
Q208....D4
Q209....C4
Q210....C3
Q211....B2
Q212....B2
Q213....A2
Q214....B3
Q215....B3
Q216....B3
Q217....C4
Q304....B1
Q305....B1
Q307....C3

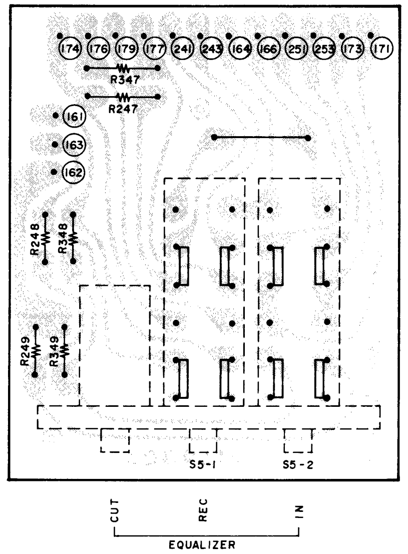
IC
IC202...D4
IC203...D3
IC204...D2
IC206...D1
IC207...C2
IC208...B3
IC307...C1

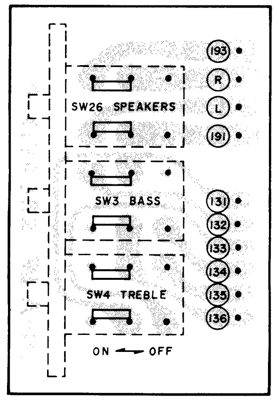
TERMINAL
CP8.....C4
CP9.....A2
CP10....A3
CP11....C2
CP12....D2
CP13....A1
CP14....A2
CP15....B1
CP16....E1
CP17....D1
CP24....E3
CP25....E2


A
B
C
D
E
1
2
3
4
IC307 M5218L
IC207 M5218L
IC206 TC9154P
IC204 μPD4066BC
IC203 μPD4052BC
IC208 μPC1161C3
IC202 M5218L
LP 301
LP 201
VR203 FM STEREO SEPARATION
VR202 MPX (19KHz)
TP204 (MPX 19KHz)
5V ONLY
IN
EQUALIZER
OUT
REC
TAPE
PB
AUX
PHONO
R
L

PRE AMP PCB R4174908

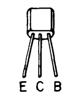
G-EQUALIZER PCB
R4174907


R347
R247
R248
R348
R249
R349
S5-1
S5-2
CUT
REC
IN
EQUALIZER

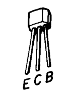

SW26 SPEAKERS
SW3 BASS
SW4 TREBLE
ON ← OFF
R
L

TONE SW PCB
R4174852

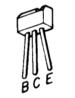
Q204, 205, 304, 305
209, 210, 217 ---- 2SC536AG
Q208, 211, 213 -------- 2SA608G
Q207, 307 --------- 2SC2878B
Q214, 216 ---------- DTC124F



2SA608G
2SC2878B



2SC536AG
2SA608G

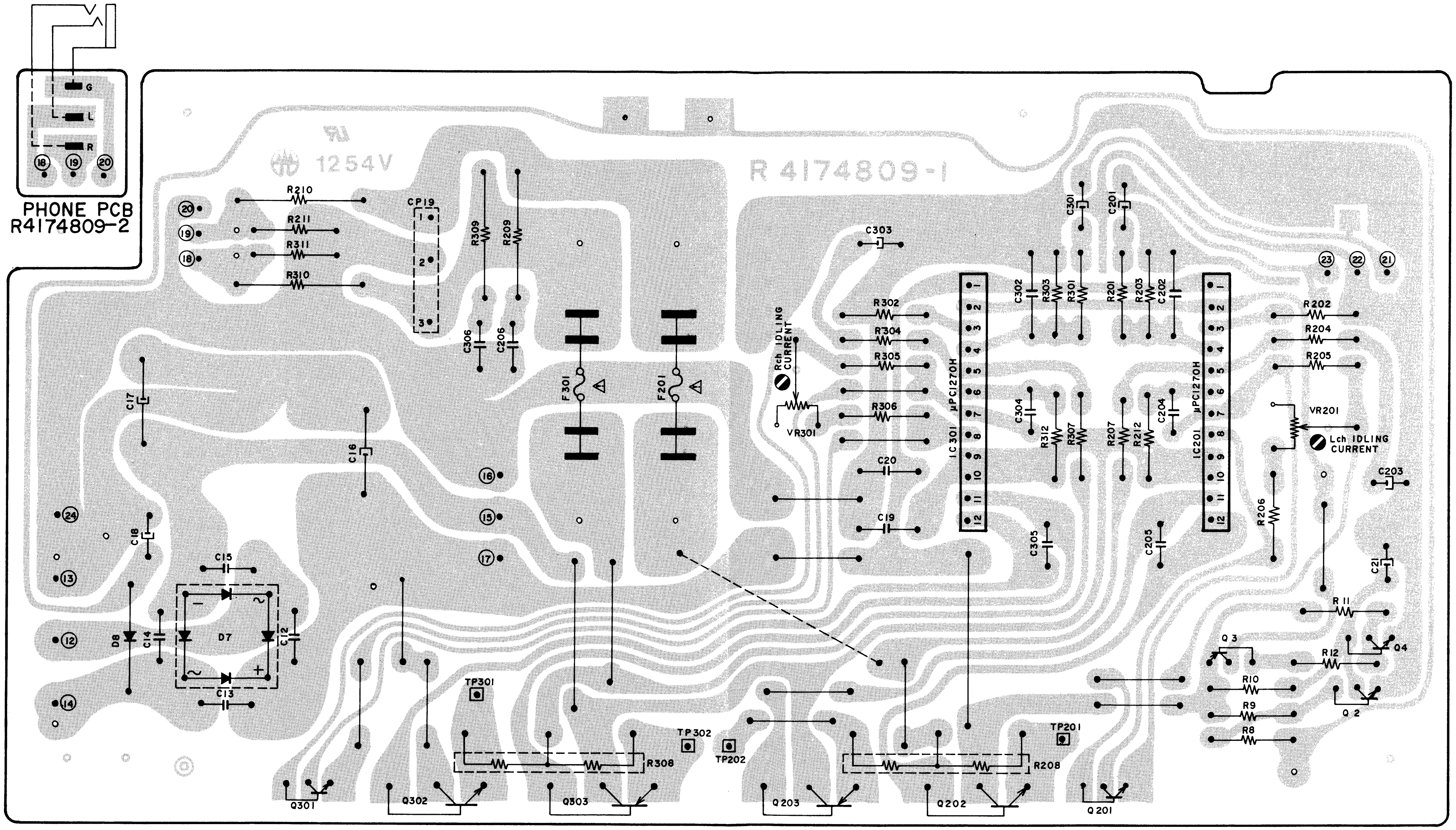


DTC124F

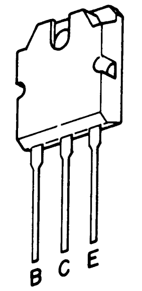
WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

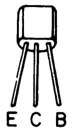
### 3) MAIN AMP P.C BOARD (R4174809-1), PHONE P.C BOARD (R4174809-2)


G
L
R
⑱ ⑲ ⑳
PHONE PCB
R4174809-2
1254V
R 4174809-1
R210
R211
R311
R310
⑳ ⑲ ⑱
CP19
1
2
3
R309
R209
C306
C206
F301
F201
C17
C16
C18
C15
D8
C14
D7
C12
C13
⑯ ⑮ ⑰
㉔ ⑬ ⑫ ⑭
C303
R302
R304
R305
R306
Rch IDLING CURRENT
VR301
C20
C19
IC301 μPC1270H
C302
R303
R301
C301
C201
R201
R203
C202
C304
R312
R307
R207
R212
C204
C305
C205
IC201 μPC1270H
㉓ ㉒ ㉑
R202
R204
R205
VR201
Lch IDLING CURRENT
C203
R206
C21
R11
Q3
Q4
R12
R10
R9
R8
Q2
TP301
TP302
TP202
TP201
R308
R208
Q301
Q302
Q303
Q203
Q202
Q201

MAIN AMP PCB R4174809-1



2SD716
2SB686



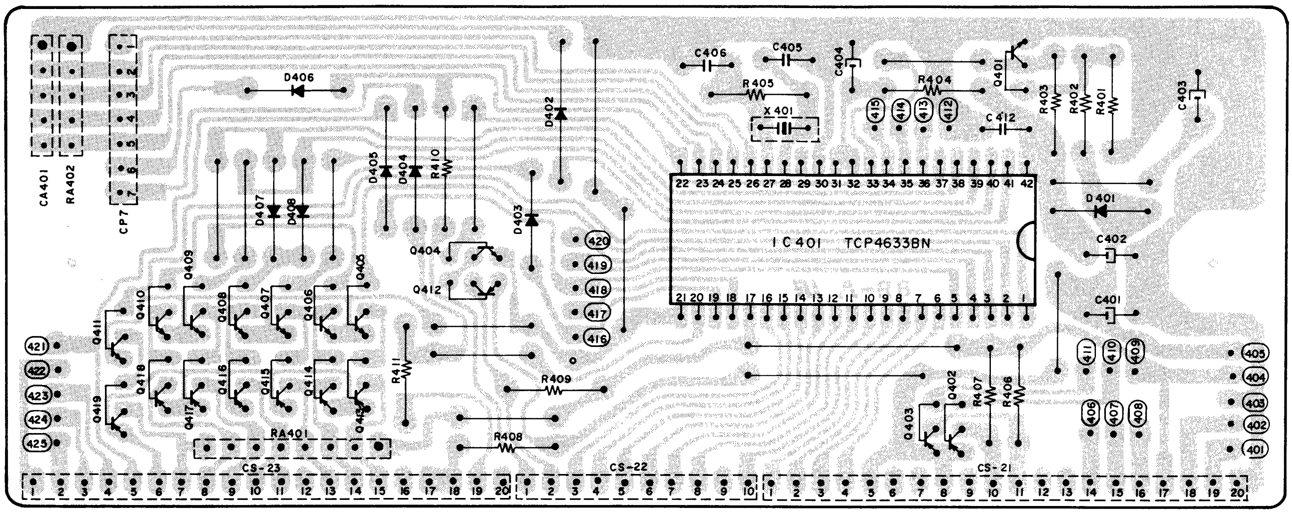
2SA608KG
2SC2240GR
2SC536KG

Q2, 4 ············ 2SC536KG
Q3 ··············· 2SA608KG
Q201, 301 ·········· 2SC2240GR
Q202, 302 ········ 2SD716
Q203, 303 ········ 2SB686

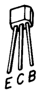
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

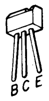
## 4) LOGIC P.C BOARD (R4174811-2)


CA401
RA402
CP7
D406
D407
D408
D405
D404
R410
D402
D403
Q409
Q410
Q411
Q408
Q407
Q406
Q405
Q404
Q412
Q418
Q419
Q417
Q416
Q415
Q414
Q413
R411
R409
R408
RA401
C406
C405
C404
R405
X401
R404
Q401
C412
R403
R402
R401
C403
D401
C402
C401
IC401 TCP4633BN
Q402
Q403
R407
R406
420
419
418
417
416
421
422
423
424
425
415
414
413
412
411
410
409
406
407
408
405
404
403
402
401
CS-23
CS-22
CS-21

LOGIC PCB R4174811-2



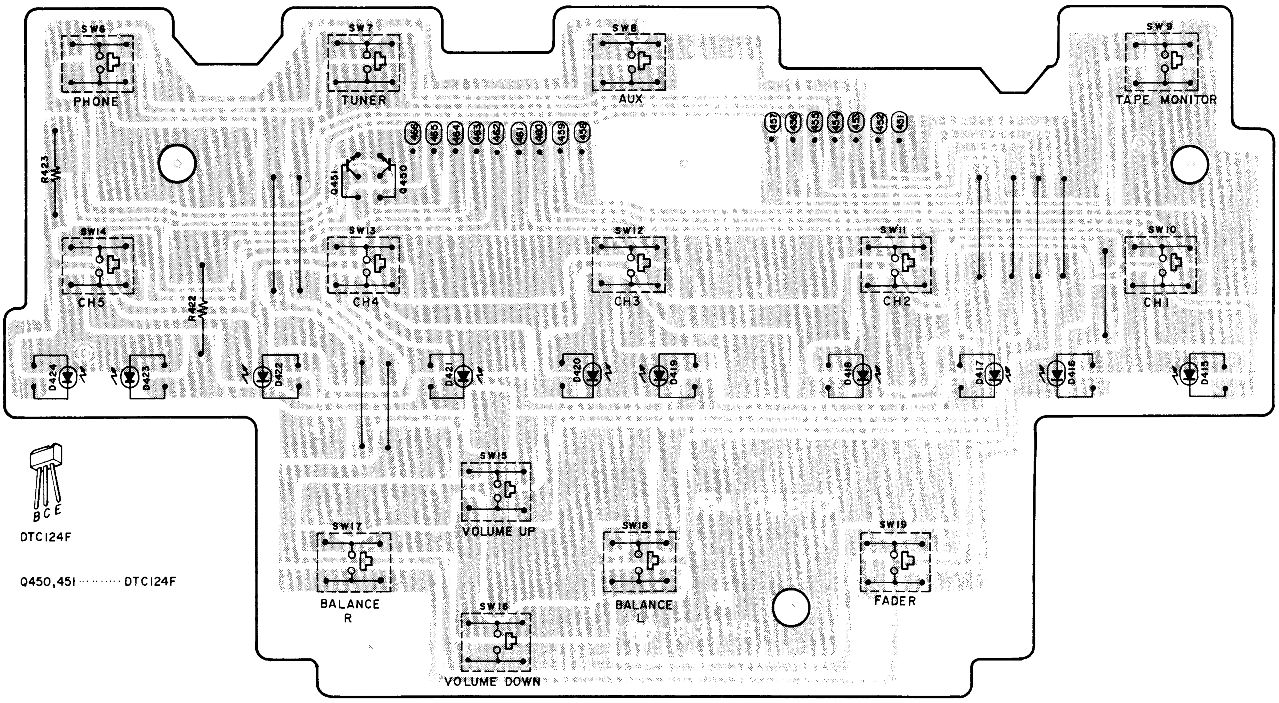
2SC536G



DTA124F
DTC124F

Q401 .................. 2SC536G
Q402,403,412 to 419 ..... DTA124F
Q404 to 411 ............. DTC124F

## 5) FUNCTION P.C BOARD (R4174810-1)


SW6
PHONE
SW7
TUNER
SW8
AUX
SW9
TAPE MONITOR
R423
Q451
Q450
SW14
CH5
SW13
CH4
SW12
CH3
SW11
CH2
SW10
CH1
R422
D424
D423
D422
D421
D420
D419
D418
D417
D416
D415
SW15
VOLUME UP
SW17
BALANCE R
SW18
BALANCE L
SW19
FADER
SW16
VOLUME DOWN
R4174810

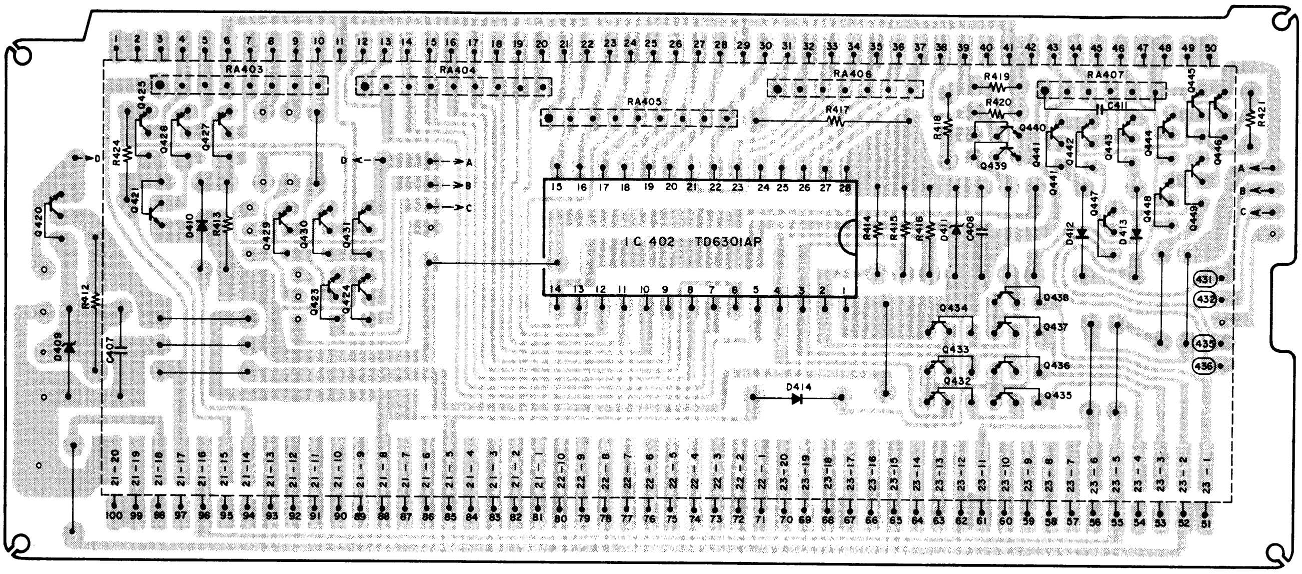
FUNCTION PCB R4174810-1

B C E

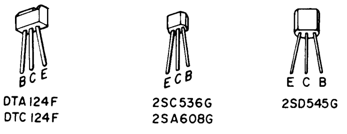
DTC124F

Q450,451 ........ DTC124F

## 6) DRIVE P.C BOARD (R4174811-1)

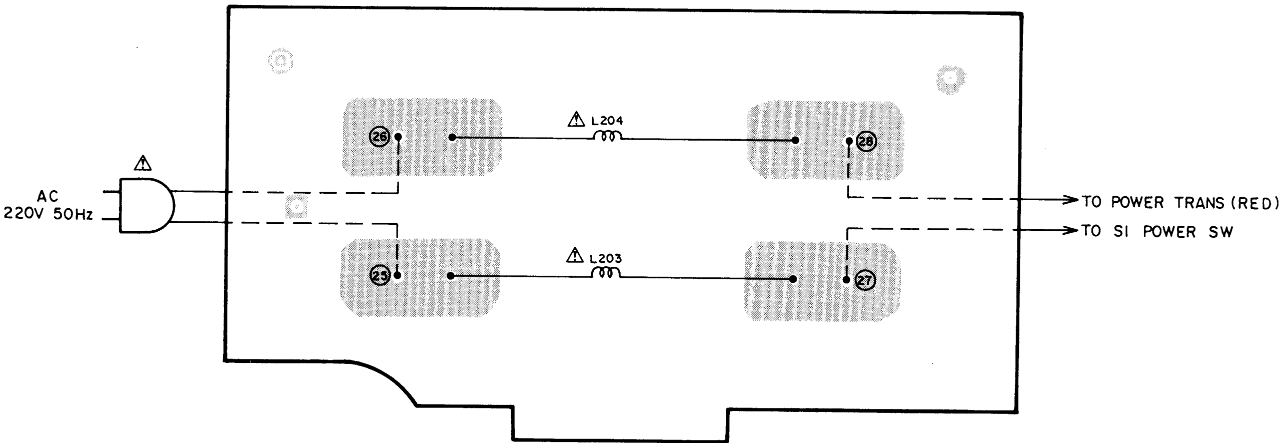

RA403
RA404
RA405
RA406
RA407
R417
R418
R419
R420
R421
R424
R412
R413
R414
R415
R416
C407
C408
C411
D409
D410
D411
D412
D413
D414
Q420
Q421
Q423
Q424
Q425
Q426
Q427
Q429
Q430
Q431
Q432
Q433
Q434
Q435
Q436
Q437
Q438
Q439
Q440
Q441
Q442
Q443
Q444
Q445
Q446
Q447
Q448
Q449
IC 402 TD6301AP
A
B
C
D
431
432
433
436
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
100 99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51
21-20 21-19 21-18 21-17 21-16 21-15 21-14 21-13 21-12 21-11 21-10 21-9 21-8 21-7 21-6 21-5 21-4 21-3 21-2 21-1
22-10 22-9 22-8 22-7 22-6 22-5 22-4 22-3 22-2 22-1
23-20 23-19 23-18 23-17 23-16 23-15 23-14 23-13 23-12 23-11 23-10 23-9 23-8 23-7 23-6 23-5 23-4 23-3 23-2 23-1

DRIVE PCB R-4174811-1


B C E
DTA124F
DTC124F
E C B
2SC536G
2SA608G
E C B
2SD545G

| | |
|---|---|
| Q420 | 2SD545G |
| Q425,426,429 to 431,<br>435 to 438, 441 to 445 | DTA124F |
| Q427, 446 | 2SA608G |
| Q439,447 to 449 | DTC124F |
| Q440 | 2SC536G |

## 7) LINE FILTER P.C BOARD (R4174869) E MODEL


⚠
AC
220V 50Hz
26
25
28
27
⚠ L204
⚠ L203
TO POWER TRANS (RED)
TO S1 POWER SW

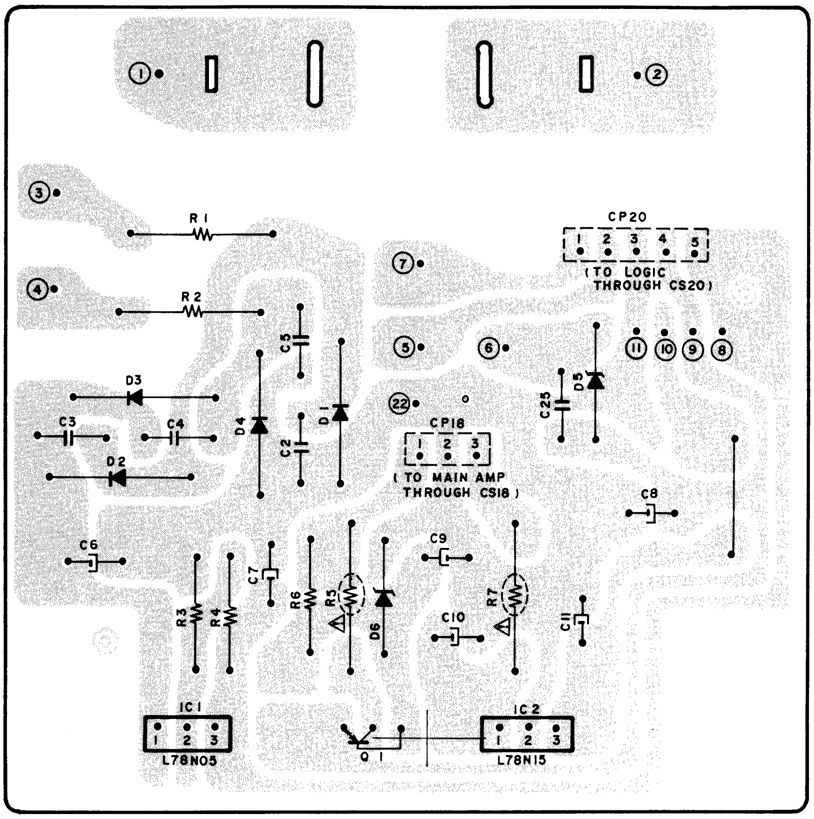
LINE FILTER PCB (R4174869) E ONLY

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

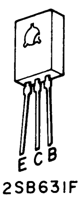
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

*MC-Service*

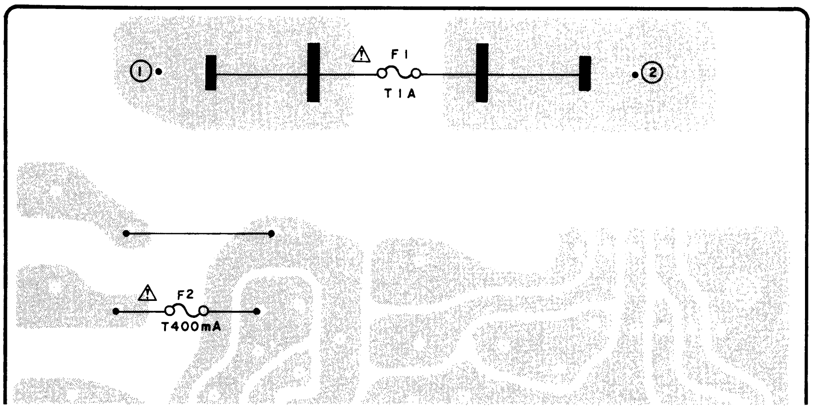
## 8) POWER SUPPLY P.C BOARD (R4174813)


①
②
③
④
R1
R2
D3
C3
C4
D2
D4
C5
C2
D1
CP20
1 2 3 4 5
(TO LOGIC THROUGH CS20)
⑦
⑤
⑥
⑪ ⑩ ⑨ ⑧
㉒
CP18
1 2 3
(TO MAIN AMP THROUGH CS18)
C25
D5
C8
C6
C7
R3
R4
R6
R5
D6
C9
C10
R7
C11
IC1
1 2 3
L78N05
Q1
IC2
1 2 3
L78N15

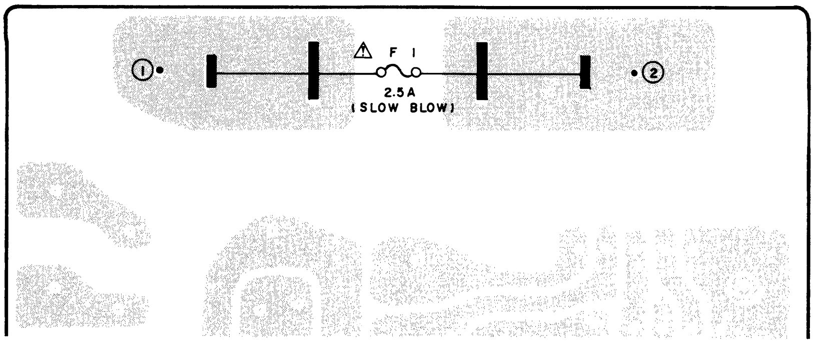
POWER SUPPLY PCB (R4174813) U J A S


E C B
2SB631F

Q1……2SB631F


①
②
⚠ F1
T1A
⚠ F2
T400mA

POWER SUPPLY PCB (R4174813) E


①
②
⚠ F1
2.5A
(SLOW BLOW)

POWER SUPPLY PCB (R4174813) C

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

## SECTION 2

# PARTS LIST

## TABLE OF CONTENTS

RECOMMENDED SPARE PARTS LIST .......... 27
1. TUNER P.C BOARD BLOCK .......... 28
2. DRIVER P.C BOARD BLOCK .......... 28
3. LOGIC P.C BOARD BLOCK .......... 28
4. FUNCTION P.C BOARD BLOCK .......... 28
5. KEY P.C BOARD BLOCK .......... 28
6. PRE AMP P.C BOARD BLOCK .......... 29
7. MAIN AMP P.C BOARD BLOCK .......... 29
8. PHONE P.C BOARD BLOCK .......... 29
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**Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.**

## ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Parts List may be partially changed, please use this parts list for all future reference.

## HOW TO USE THIS PARTS LIST

1. This Parts List shows the parts that are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts". Select and order such parts from the "Common List for Service Parts".
2. The Recommended Spare Parts shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not be supplied in principle.
4. How to read list
   a) Mechanism Block

### 2. HEAD BASE BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 2-1x | BH-T2023A320A | HEAD BASE BLOCK GX-F66R |
| 2-2 | HP-H2206A010A | HEAD R/P PR4-8FU C |
| 2-3 | ZS-477876 | PAN20x03STL CMT |
| 2-4 | ZS-536488 | BID20x08STL CMT |
| 2-5 | ZG-402895 | CS ANGLE ADJUST SPRING |

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

   b) P.C Board Block

### 6. SYS. CON. P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 6-1 | BA-T2034A070A | PC SYS CON BLK GX-F44R |
| 6-IC1 | EI-324536 | IC HD14049BP |
| 6-IC2 | EI-336801 | IC MB8841-564M |
| 6-IC3 | EI-331661 | IC SN7405N |
| 6-IC4 | EI-336725 | IC M54527P |
| 6-TR1to4 | ET-200985 | TR 2SC2603 F,G |
| 6-TR5to28 | ET-554657 | TR 2SA733A P,Q |
| 6-D1 | ED-318292 | D SILICON H 1S2473T-77 T26 |
| 6-D2to4 | ED-308952 | D GERMA V 1K34A-LR F07 |
| 6-D5to10 | ED-318292 | D SILICON H 1S2473T-77 T26 |
| 6-X1 | EI-318384 | OSC X'TAL NC-18C<br>3.579545MHZ |

SP (Service Parts) Classification

This reference numbers corresponds with symbol numbers of Schematic Diagrams.

5. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List. It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index.

## WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

## AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

## RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

| NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 1 | BT-710961 | ⚠ TRANS POWER AA-M3 (A) |
| 2 | BT-710960 | ⚠ TRANS POWER AA-M3 (C) |
| 3 | BT-710962 | ⚠ TRANS POWER AA-M3 (E) |
| 4 | BT-710959 | ⚠ TRANS POWER AA-M3 (J) |
| 5 | BT-710963 | ⚠ TRANS POWER AA-M3 (S) |
| 6 | BT-710958 | ⚠ TRANS POWER AA-M3 (U) |
| 7 | EC-711085 | C COMP |
| 8 | EC-711086 | C COMP |
| 9 | EC-710978 | C S-FIX |
| 10 | ED-562386 | D GERMA H 1S188AM |
| 11 | ED-711138 | D LED SLP-436B |
| 12 | ED-711161 | D SILICON DBA40C-K20 |
| 13 | ED-710913 | D SILICON DS135D |
| 14 | ED-336805 | D SILICON DS135D-KB1 200/1.0A |
| 15 | ED-327057 | D SILICON H DS442X |
| 16 | ED-711092 | D VARACTOR SVC321-C2 |
| 17 | ED-710997 | D ZENER GZA16Y |
| 18 | ED-710904 | D ZENER GZA18Y |
| 19 | ED-710988 | D ZENER GZA2R3X |
| 20 | ED-710978 | D ZENER GZA2R7Y |
| 21 | ED-710999 | D ZENER GZA4R7X |
| 22 | ED-710975 | D ZENER GZA4R7Y |
| 23 | ED-710979 | D ZENER GZA5R1Y |
| 24 | ED-710986 | D ZENER GZA5R6Y |
| 25 | EE-710970 | FM FRONT END |
| 26 | EE-711072 | FM FRONT END |
| 27 | EF-668474 | ⚠ FUSE SEMKO T 250V 0.40A (E) |
| 28 | EF-623103 | ⚠ FUSE SEMKO T 250V 1A (E) |
| 29 | EF-623125 | ⚠ FUSE SEMKO T 250V 2.5A (U,E,S) |
| 30 | EF-424811 | ⚠ FUSE ST6 125V 2.50A (C) |
| 31 | EF-424811 | ⚠ FUSE ST6 125V 2.50A (J,C,A) |
| 32 | EH-710971 | FILTER CE (U,J,C,E) |
| 33 | EH-710972 | FILTER CE (S) |
| 34 | EH-711084 | FILTER CE |
| 35 | EI-337417 | IC LA1235 |
| 36 | EI-202218 | IC LA1245 |
| 37 | EI-711177 | IC L78N05 |
| 38 | EI-711179 | IC L78N15 |
| 39 | EI-337228 | IC M5218L0 |
| 40 | EI-306727 | IC TC4013BP |
| 41 | EI-344436 | IC TC9147P (J) |
| 42 | EI-343371 | IC TC9154P |
| 43 | EI-711089 | IC TC9157P(EXCEPT J) |
| 44 | EI-711127 | IC TCP4633BN |
| 45 | EI-344438 | IC TD6104P |
| 46 | EI-344437 | IC TD6301AP |
| 47 | EI-707240 | IC μPC1161C3 |
| 48 | EI-711168 | IC μPC1270H |
| 49 | EI-711149 | IC μPD4052BC |
| 50 | EI-317653 | IC μPD4066C |
| 51 | EI-711128 | OSC CE 400KHZ |
| 52 | EI-711077 | OSC X'TAL |
| 53 | EM-711114 | IND FL FLD |
| 54 | EO-711184 | ⚠ COIL LF (L203,204) |
| 55 | EO-711080 | COIL ANT |
| 56 | EO-707227 | COIL FIX |
| 57 | EO-711073 | COIL IFT |
| 58 | EO-711074 | COIL IFT |
| 59 | EO-711082 | COIL IFT |
| 60 | EO-711083 | COIL IFT |
| 61 | EO-711081 | COIL OSC |
| 62 | ER-711169 | ⚠ R FUSE H 1/2W 4R7J (E,B) |
| 63 | ER-710901 | ⚠ R FUSE 330J (EXCEPT E) |
| 64 | ER-710911 | ⚠ R FUSE 5R6J (E) |
| 65 | ER-707231 | FILTER |
| 66 | ER-711117 | R COMP |
| 67 | ER-711118 | R COMP |
| 68 | ER-711183 | R FUSE H 220J |
| 69 | ER-711076 | R S-FIX |
| 70 | ES-711056 | ⚠ SW PUSH (S1) |
| 71 | ES-710966 | ⚠ SW ROTARY AA-M3 (S2) (U) |
| 72 | ES-711172 | SW PUSH 3 THROW (S3,4,36) |
| 73 | ES-711173 | SW PUSH 3 THROW (S5) |
| 74 | ES-336780 | SW TACT KHH10902 |
| 75 | ET-711116 | TR DTA124F |
| 76 | ET-711091 | TR DTC124F |
| 77 | ET-711094 | TR FET 2SK161Y |
| 78 | ET-322778 | TR 2SA608K-NP E,F,G |
| 79 | ET-322244 | TR 2SA608K-NP F,G |
| 80 | ET-327714 | TR 2SB631K F |
| 81 | ET-310165 | TR 2SB686 R,O AKAI |
| 82 | ET-307195 | TR 2SC2240 GR,BL |
| 83 | ET-338410 | TR 2SC2878 A,B |
| 84 | ET-316643 | TR 2SC536K-NP F,G |
| 85 | ET-246846 | TR 2SC536NP E,F,G,H |
| 86 | ET-328265 | TR 2SC930 F |
| 87 | ET-318604 | TR 2SD545NP E,F |
| 88 | ET-310166 | TR 2SD716 R,O AKAI |
| 89 | EV-707236 | R S-FIX 103 |
| 90 | EV-710994 | R S-FIX 501 |
| 91 | EV-710985 | R S-FIX 504 |

## 1. TUNER P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 1-1U | BA-710967 | PC TUNER BLK AA-M3(U) (U8,C,A) |
| 1-1E | BA-710969 | PC TUNER BLK AA-M3(E) (U1,2,3,5,E,S) |
| 1-1J | BA-710968 | PC TUNER BLK AA-M3(J) |
| 1-IC101 | EI-337417 | IC LA1235 |
| 1-IC102 | EI-202218 | IC LA1245 |
| 1-IC103 | EI-344438 | IC TD6104P |
| 1-IC104 | EI-306728 | IC TC5080P |
| 1-IC105 | EI-711089 | IC TC9157P (EXCEPT J) |
| 1-IC105 | EI-344436 | IC TC9147P (J) |
| 1-Q101 | ET-328265 | TR 2SC930 F |
| 1-Q102to105 | ET-246846 | TR 2SC536NP E,F,G,H |
| 1-Q106 | ET-328265 | TR 2SC930 F |
| 1-Q107 | ET-711091 | TR DTC124F |
| 1-Q108,109 | ET-246846 | TR 2SC536NP E,F,G,H |
| 1-Q110 | ET-711094 | TR FET 2SK161Y |
| 1-Q111to114 | ET-246846 | TR 2SC536NP E,F,G,H |
| 1-Q115 | ET-322778 | TR 2SA608K-NP E,F,G |
| 1-Q116 | ET-711091 | TR DTC124F |
| 1-Q117 | ET-711116 | TR DTA124F |
| 1-D101 | ED-710974 | D ZENER GZA8R2Y |
| 1-D102 | ED-327057 | D SILICON H DS442X |
| 1-D103 | ED-710975 | D ZENER GZA4R7Y |
| 1-D105,106 | ED-711092 | D VARACTOR SVC321-C2 |
| 1-D107 | ED-562386 | D GERMA H 1S188AM |
| 1-D108 | ED-710975 | D ZENER GZA4R7Y |
| 1-D109 | ED-327057 | D SILICON H DS442X |
| 1-E110U | ED-710913 | D SILICON DS135D (U,C) |
| 1-D110J | ED-710903 | D SILICON DS130D (J,E,S) |
| 1-D111to119 | ED-327057 | D SILICON H DS442X |
| 1-L2 | EO-711081 | COIL OSC |
| 1-L3 | EO-711080 | COIL ANT |
| 1-T1 | EO-711073 | COIL IFT |
| 1-T2 | EO-711074 | COIL IFT |
| 1-T3 | ER-707231 | FILTER |
| 1-T4 | EO-711082 | COIL IFT |
| 1-T5 | EO-711083 | COIL IFT |
| 1-CF1U | EH-710971 | FILTER CE (U,J,C,E) |
| 1-CF1S | EH-710972 | FILTER CE (S) |
| 1-CF2U | EH-710971 | FILTER CE (U,J,C,E) |
| 1-CF2S | EH-710972 | FILTER CE (S) |
| 1-CF3U | EH-710971 | FILTER CE (U,J,C,E) |
| 1-CF3S | EH-710972 | FILTER CE (S) |
| 1-CF4 | EH-711084 | FILTER CE |
| 1-CA1 | EC-711085 | C COMP |
| 1-CA2 | EC-711086 | C COMP |
| 1-CT1,2 | EC-710973 | C S-FIX |
| 1-SVR1 | ER-711076 | R S-FIX |
| 1-SVR3,4 | ER-711076 | R S-FIX |
| 1-X1 | EI-711077 | OSC X'TAL |
| 1-2U | EE-711072 | FM FRONT END |
| 1-2J | EE-710970 | FM FRONT END |
| 1-R40 | ER-336919 | R OMF H SNP FS 1W 121J |
| 1-R49 | ER-324251 | R OMF H FS 1W 101J |
| 1-R106 | ER-324251 | R OMF H FS 1W 101J |
| 1-C85 | EC-314996 | C STY V SNP CQFS 391J 50DC |
| 1-C127 | EC-344157 | C DOUBLE LAYER 473Z 5.5DC |

## 2. DRIVER P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 2-1 | BA-710977 | PC DRIVER BLK AA-M3 |
| 2-IC402 | EI-344437 | IC TD6301AP |
| 2-Q420 | ET-318604 | TR 2SD545NP E,F |
| 2-Q421 | ET-711091 | TR DTC124F |
| 2-Q423,424 | ET-711091 | TR DTC124F |
| 2-Q425,426 | ET-711116 | TR DTA124F |
| 2-Q427 | ET-322778 | TR 2SA608K-NP E,F,G |
| 2-Q429to431 | ET-711116 | TR DTA124F |
| 2-Q432to434 | ET-711091 | TR DTC124F |
| 2-Q435to438 | ET-711116 | TR DTA124F |
| 2-Q439 | ET-711091 | TR DTC124F |
| 2-Q441to445 | ET-711116 | TR DTA124F |
| 2-Q446 | ET-322778 | TR 2SA608K-NP E,F,G |
| 2-Q447to449 | ET-711091 | TR DTC124F |
| 2-D409 | ED-710978 | D ZENER GZA2R7Y |
| 2-D410 | ED-327057 | D SILICON H DS442X |
| 2-D411 | ED-710979 | D ZENER GZA5R1Y |
| 2-D412,413 | ED-327057 | D SILICON H DS442X |
| 2-RA403 | ER-711118 | R COMP |
| 2-RA404,405 | ER-711117 | R COMP |
| 2-RA406 | ER-711119 | R COMP |
| 2-RA407 | ER-711120 | R COMP |
| 2-FLD | EM-711114 | IND FL |

## 3. LOGIC P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 3-1 | BA-710980 | PC LOGIC BLK AA-M3 |
| 3-IC401 | EI-711127 | IC TPC4633BN |
| 3-Q401 | ET-246846 | TR 2SC536NP E,F,G,H |
| 3-Q402,403 | ET-711116 | TR DTA124F |
| 3-Q404to411 | ET-711091 | TR DTC124F |
| 3-Q412to419 | ET-711116 | TR DTA124F |
| 3-D401 | ED-710913 | D SILICON DS135D |
| 3-D402to407 | ED-327057 | D SILICON H DS442X |
| 3-X401 | EI-711128 | OSC CE 400KHZ |
| 3-RA401 | ER-711118 | R COMP |
| 3-RA402 | ER-711129 | R COMP |
| 3-CA401 | EC-7111130 | COMP |
| 3-C403 | EC-344157 | C DOUBLE LAYER 473Z 5.5DC |

## 4. FUNCTION P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 4-Q450,451 | ET-711091 | TR DTC124F |
| 4-Q415to424 | ED-711138 | D LED SLP-436B |
| 4-S6to19 | ES-336780 | SW TACT KHH10902 |

## 5. KEY P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 5-S20to25 | ES-336780 | SW TACT KHH10902 |

## 6. PRE AMP P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 6-1U | BA-710981 | PC PRE AMP BLK AA-M3(U,C,A) |
| 6-1J | BA-710982 | PC PRE AMP BLK AA-M3 (J,S) |
| 6-1E | BA-710983 | PC PRE AMP BLK AA-M3 (E) |
| 6-IC202 | EI-337228 | IC M5218LO |
| 6-IC203 | EI-7111149 | IC μPD4052BC |
| 6-IC204 | EI-317653 | IC μPD4066C |
| 6-IC206 | EI-343371 | IC TC9154P |
| 6-IC207 | EI-337228 | IC M5218L0 |
| 6-IC208 | EI-707240 | IC μPC1161C3 |
| 6-IC307 | EI-337228 | IC M5218L0 |
| 6-Q204,205 | ET-246846 | TR 2SC536NP E,F,G,H |
| 6-Q207 | ET-338410 | TR 2SC2878 A,B |
| 6-Q208 | ET-322778 | TR 2SA608K-NP E,F,G |
| 6-Q209,210 | ET-246846 | TR 2SC536NP E,F,G,H |
| 6-Q211 | ET-322778 | TR 2SA608K-NP E,F,G |
| 6-Q213 | ET-322778 | TR 2SA608K-NP E,F,G |
| 6-Q214 | ET-711091 | TR DTC124F |
| 6-Q216 | ET-711091 | TR DTC124F |
| 6-Q217 | ET-246846 | TR 2SC536NP E,F,G,H |
| 6-Q304,305 | ET-246846 | TR 2SC536NP E,F,G,H |
| 6-Q307 | ET-338410 | TR 2SC2878 A,B |
| 6-D10 | ED-710904 | D ZENER GZA18Y |
| 6-D202 | ED-710986 | D ZENER GZA5R6Y |
| 6-D203 | ED-710988 | D ZENER GZA2R3X |
| 6-D204to208 | ED-327057 | D SILICON H DS442X |
| 6-D210 | ED-327057 | D SILICON H DS442X |
| 6-D212to217 | ED-327057 | D SILICON H DS442X |
| 6-LP201 | EO-707227 | COIL FIX |
| 6-LP301 | EO-707227 | COIL FIX |
| 6-VR202 | EV-707236 | R S-FIX 103 |
| 6-VR203 | EV-710985 | R S-FIX 504 |
| 6-R271 | ER-336919 | R OMF H SNP FS 1W 121J |
| 6-C239 | EC-330309 | C STY F05 CQ09S 511J 50DC |
| 6-2 | EJ-711141 | PIN JACK 6P |
| 6-C230 | EC-314715 | C MY V AMX 122J 50DC |
| 6-C330 | EC-314715 | C MY V AMX 122J 50DC |

NOTE: The parts indicated in REF. NO. 6-1U is for 75μs FM-EMPHASIS area. For 50μs FM-EMPHASIS area, change the value of two capacitors (C230, C330) from 182J to 122J.

## 7. MAIN AMP P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 7-1U | BA-710990 | PC MAIN AMP BLK AA-M3(U) |
| 7-1J | BA-710991 | PC MAIN AMP BLK AA-M3(J) |
| 7-1C | BA-710992 | PC MAIN AMP BLK AA-M3(C)(C,A) |
| 7-1E | BA-710993 | PC MAIN AMP BLK AA-M3(E)(E,S) |
| 7-IC201 | EI-711168 | IC μPC1270H |
| 7-IC301 | EI-711168 | IC μPC1270H |
| 7-Q2 | ET-316643 | TR 2SC536K-NP F,G |
| 7-Q3 | ET-322244 | TR 2SA608K-NP F,G |
| 7-Q4 | ET-316643 | TR 2SC536K-NP F,G |
| 7-Q201 | ET-307195 | TR 2SC2240 GR,BL |
| 7-Q202 | ET-310166 | TR 2SD716 R,O AKAI |
| 7-Q203 | ET-310165 | TR 2SB686 R,O AKAI |
| 7-Q301 | ET-307195 | TR 2SC2240 GR,BL |
| 7-Q302 | ET-310166 | TR 2SD716 R,O AKAI |
| 7-Q303 | ET-310165 | TR 2SB686 R,O AKAI |
| 7-D7 | ED-711161 | D SILICON DBA40C-K20 |
| 7-D8 | ED-336805 | D SILICON DS135D-KB1 200/1.0A |
| 7-VR201 | EV-710994 | R S-FIX 501 |
| 7-VR301 | EV-710994 | R S-FIX 501 |
| 7-R208 | ER-711159 | R COMP |
| 7-R209U | ER-337754 | R OMF H S15 FS 1W 100J(U,J,C,A) |
| 7-R209E | ER-711169 | ⚠ R FUSE H 1/2W 4R7J (E,B) |
| 7-R210 | ER-303342 | R OMF H FS 1W 331J |
| 7-R308 | ER-711159 | R COMP |
| 7-R309U | ER-337754 | R OMF H S15 FS 1W 100J(U,J,C,A) |
| 7-R309E | ER-711169 | ⚠ R FUSE H 1/2W 4R7J (E,B) |
| 7-R310 | ER-303342 | R OMF H FS 1W 331J |
| 7-C16,17 | EC-711170 | C EC V 472M 50DC |
| 7-F201U | EF-623125 | ⚠ FUSE SEMKO T 250V 2.5A (U,E,S) |
| 7-F201J | EF-424811 | ⚠ FUSE ST6 125V 2.50A (J,C,A) |
| 7-F301U | EF-623125 | FUSE SEMKO T 250V 2.5A (U,E,S) |
| 7-F301J | EF-424811 | ⚠ FUSE ST6 125V 2.50A (J,C,A) |

## 8. PHONE P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 8-J1 | EJ-711171 | PHONE J |

## 9. TONE SW P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 9-1 | ES-711172 | SW PUSH 3 THROW (S3,4,26) |

## 10. G EQUALIZER P.C BOARD BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 10-1 | ES-711173 | SW PUSH 3 THROW (S5) |

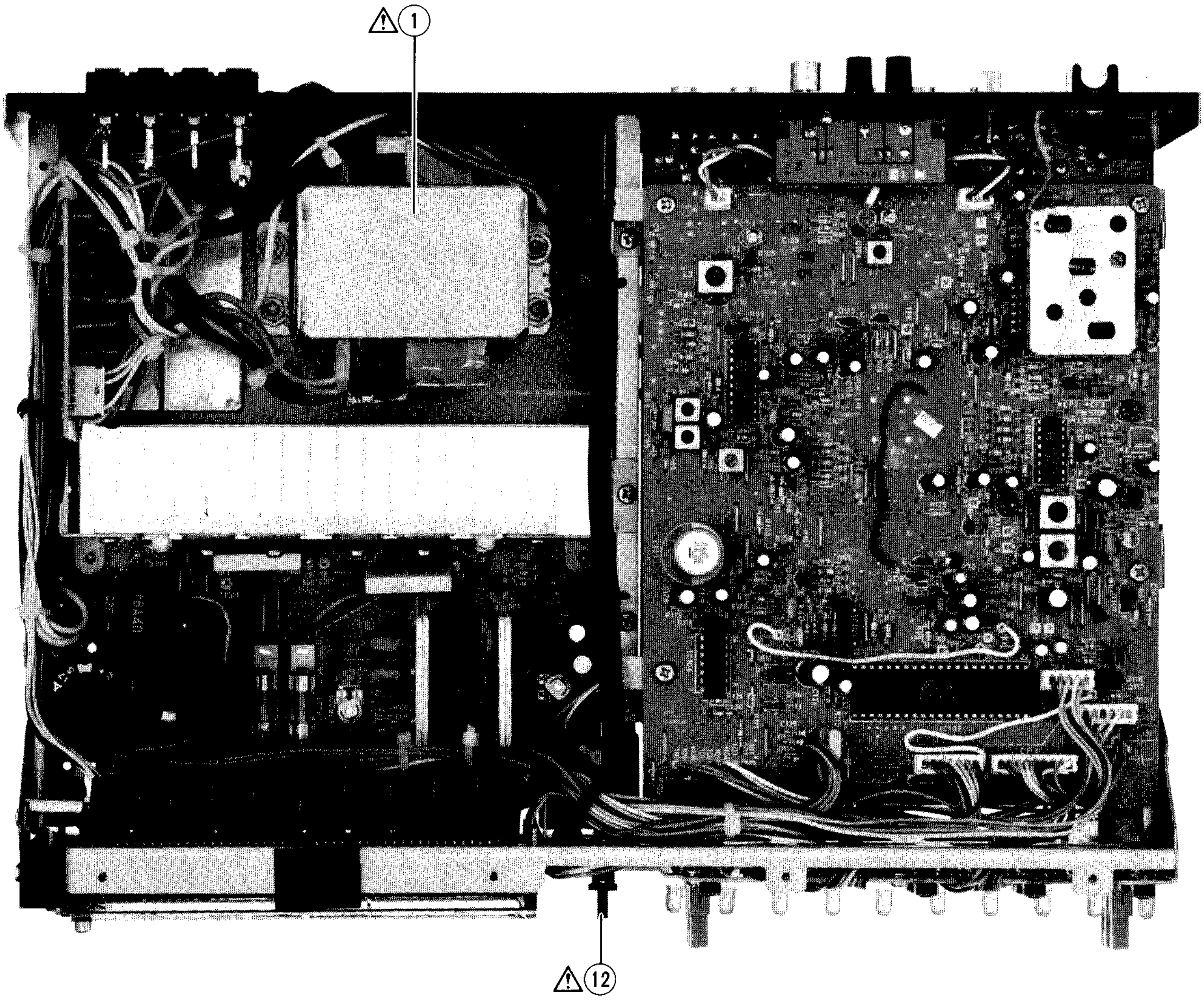
## 11. POWER SUPPLY P.C BOARD BLOCK

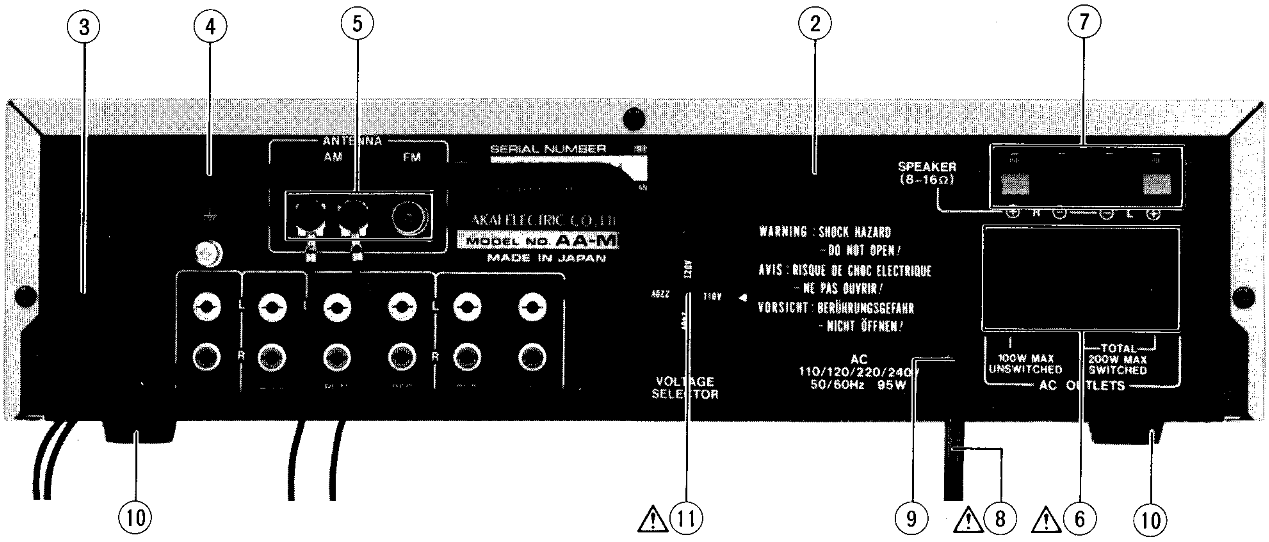
| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 11-IC1 | EI-711177 | IC L78N05 |
| 11-IC2 | EI-711179 | IC L78N15 |
| 11-Q1 | ET-327714 | TR 2SB631K F |
| 11-D1to4 | ED-336805 | D SILICON DS135D-KB1 200/1.0A |
| 11-D5 | ED-710999 | D ZENER GZA4R7X |
| 11-D6 | ED-710997 | D ZENER GZA16Y |
| 11-R1,2 | ER-710900 | R CB FS 1R8J |
| 11-R5U | ER-710901 | ⚠ R FUSE 330J (EXCEPT E) |
| 11-R5E | ER-710911 | ⚠ R FUSE 5R6J (E) |
| 11-R7 | ER-711183 | ⚠ R FUSE H 220J |
| 11-F1C | EF-424811 | ⚠ FUSE ST6 125V 2.50A (C) |
| 11-F1E | EF-623103 | ⚠ FUSE SEMKO T 250V 1A (E) |

## 12. LINE FILTER P.C BOARD BLOCK
## (E Model Only)

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 12-1 | EO-711184 | ⚠ COIL LF (L203,204) |

# ASSEMBLY BLOCK




③
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ANTENNA
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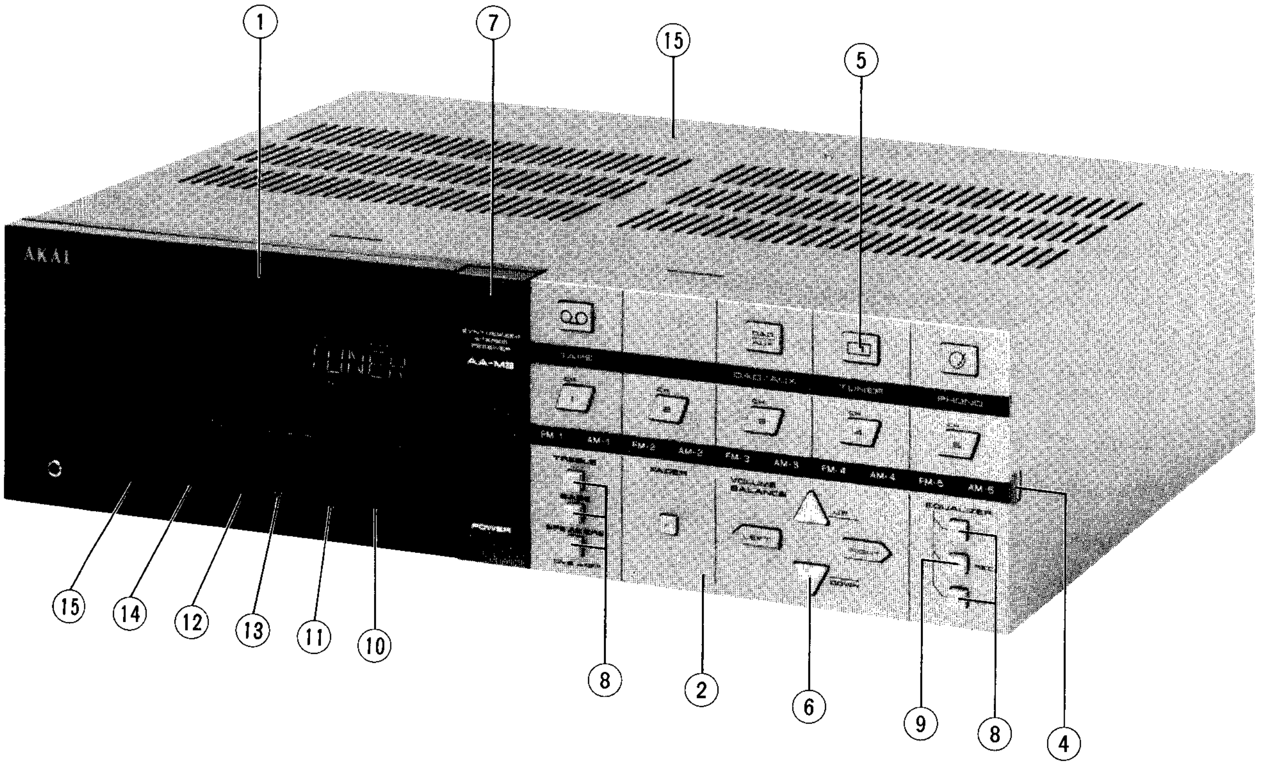
FM
SERIAL NUMBER
AKAI ELECTRIC CO., LTD
MODEL NO. AA-M
MADE IN JAPAN
SPEAKER
(8-16Ω)
⊕ R ⊖ ⊖ L ⊕
WARNING : SHOCK HAZARD
- DO NOT OPEN!
AVIS : RISQUE DE CHOC ELECTRIQUE
- NE PAS OUVRIR!
VORSICHT : BERÜHRUNGSGEFAHR
- NICHT ÖFFNEN!
110V
VOLTAGE
SELECTOR
AC
110/120/220/240V
50/60Hz 95W
100W MAX
UNSWITCHED
TOTAL
200W MAX
SWITCHED
AC OUTLETS
⑩
⚠⑪
⑨
⚠⑧
⚠⑥
⑩

## 13. ASSEMBLY BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 13-1U | BT-710958 | ⚠ TRANS POWER AA-M3 (U) |
| 13-1J | BT-710959 | ⚠ TRANS POWER AA-M3 (J) |
| 13-1C | BT-710960 | ⚠ TRANS POWER AA-M3 (C) |
| 13-1A | BT-710961 | ⚠ TRANS POWER AA-M3 (A) |
| 13-1E | BT-710962 | ⚠ TRANS POWER AA-M3 (E) |
| 13-1S | BT-710963 | ⚠ TRANS POWER AA-M3 (S) |
| 13-2U | SP-710951 | PANEL REAR AA-M3 (U) |
| 13-2J | SP-710952 | PANEL REAR AA-M3 (J) |
| 13-2C | SP-710953 | PANEL REAR AA-M3 (C) |
| 13-2A | SP-710955 | PANEL REAR AA-M3 (A) |
| 13-2E | SP-710956 | PANEL REAR AA-M3 (E) |
| 13-2S | SP-710957 | PANEL REAR AA-M3 (S) |
| 13-3 | SZ-711052 | HOLDER ANTENNA |
| 13-4 | EE-707211 | ANT LOOP (L1) |
| 13-5 | EJ-344423 | TERMINAL W/SCREW YKD31-0133 P 2P |
| 13-6 | EJ-710964 | ⚠ SOCKET OUTLET AA-M3 |
| 13-7 | EJ-711054 | ⚠ TERMINAL PUSH 4P |
| 13-8U | EW-306428 | ⚠ AC CORD 2 CORES KP-205A, VFF J (U) |
| 13-8J | EW-306427 | ⚠ AC CORD 2 CORES KP-211, VFF J (J) |
| 13-8C | EW-343363 | ⚠ AC CORD 2 CORES KP-8, SPT-2 UC (C,A) |
| 13-8E | EW-313882 | ⚠ AC CORD 2 CORES KP-149C, LTCE-2F E (E) |
| 13-8S | EW-201515 | ⚠ AC CORD 2 CORES KP-560, LTSA-2F S (S) |
| 13-9U | EZ-706210 | STRAIN RELIEF 2P-4 (U,J) |
| 13-9C | EZ-706319 | STRAIN RELIEF (C,A,E,S) |
| 13-10 | SA-711043 | RUBBER FOOT |
| 13-11 | ES-710966 | ⚠ SW ROTARY AA-M3 (S2)(U) |
| 13-12 | ES-711056 | ⚠ SW PUSH (S1) |
| 13-C1U | EC-338411 | ⚠ C CE V FZ 103P 400AC (EXCEPT J) |
| 13-C1J | EC-320548 | ⚠ C CE V F 103Z 250AC (J) |
| 13-F2 | EF-668474 | ⚠ FUSE SEMKO T 250V 0.40A (E) |

## FINAL ASSEMBLY BLOCK


1
7
15
5
AKAI
TUNER
AA-M3
TAPE
CAD/AUX
TUNER
PHONO
POWER
TREBLE
FADER
VOLUME BALANCE
EQUALIZER
15
14
12
13
11
10
8
2
6
9
8
4

## 14. FINAL ASSEMBLY BLOCK

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|---|---|
| 14-1 | BD-710920 | PANEL FRONT BLK (LEFT) |
| 14-2 | BD-710919 | PANEL FRONT BLK (RIGHT) |
| 14-3X | SZ-345569 | BT CTS30×08STL CMT |
| 14-4 | SZ-711005 | HOLDER FILM |
| 14-5 | SK-344798 | RUBBER BUTTON SHEET OPERATION (1) |
| 14-6 | SK-344799 | RUBBER BUTTON SHEET OPERATION (2) |
| 14-7 | SK-344330C | KNOB POWER AA-M3 |
| 14-8 | SK-711007 | KNOB FUNCTION |
| 14-9 | SK-711008 | KNOB FUNCTION |
| 14-10 | SK-711009 | KNOB AM |
| 14-11 | SK-711010 | KNOB FM |
| 14-12 | SK-711012 | KNOB SCAN |
| 14-13 | SK-711013 | KNOB MEMORY |
| 14-14 | SK-711014 | KNOB UP |
| 14-15 | SK-711015 | KNOB DOWN |
| 14-16 | SP-710950 | COVER UPPER AA-M3 |
| 14-17x | EE-315329 | ANT DIPOLE AFM-1B (EXCEPT J) |
| 14-18x | EE-320526 | ANT DIPOLE AMM-1A (J) |
| 14-19x | EJ-315331 | FM ANTENNA SOCKET (U,J,C,A) |
| 14-20x | TA-711186 | PRESET INDICATION FILM (EXCEPT J) |
| 14-21x | TA-710902 | PRESET INDICATION FILM (J) |

# INDEX

| PARTS NO. | REF. NO. |
|---|---|
| BA-710967 | 1-1U |
| BA-710968 | 1-1J |
| BA-710969 | 1-1E |
| BA-710977 | 2-1 |
| BA-710980 | 3-1 |
| BA-710981 | 6-1U |
| BA-710982 | 6-1J |
| BA-710983 | 6-1E |
| BA-710990 | 7-1U |
| BA-710991 | 7-1J |
| BA-710992 | 7-1C |
| BA-710993 | 7-1E |
| BD-710919 | 14-2 |
| BD-710920 | 14-1 |
| BT-710958 | 13-1U |
| BT-710959 | 13-1U |
| BT-710960 | 13-1C |
| BT-710961 | 13-1A |
| BT-710962 | 13-1E |
| BT-710963 | 13-1S |
| EC-314715 | 6-C330 |
| EC-314715 | 6-C230 |
| EC-314996 | 1-C85 |
| EC-320548 | 13-C1J |
| EC-330309 | 6-C239 |
| EC-338411 | 13-C1U |
| EC-344157 | 1-C127 |
| EC-344157 | 3-C403 |
| EC-710973 | 1-CT1 |
| EC-710973 | 1-CT2 |
| EC-711085 | 1-CA1 |
| EC-711086 | 1-CA2 |
| EC-711130 | 3-CA401 |
| EC-711170 | 7-C16 |
| EC-711170 | 7-C17 |
| ED-327057 | 1-D119 |
| ED-327057 | 1-D109 |
| ED-327057 | 1-D116 |
| ED-327057 | 1-D118 |
| ED-327057 | 1-D112 |
| ED-327057 | 1-D113 |
| ED-327057 | 1-D114 |
| ED-327057 | 1-D111 |
| ED-327057 | 1-D115 |
| ED-327057 | 1-D102 |
| ED-327057 | 2-D412 |
| ED-327057 | 2-D413 |
| ED-327057 | 2-D410 |
| ED-327057 | 3-D402 |
| ED-327057 | 3-D407 |
| ED-327057 | 3-D406 |
| ED-327057 | 3-D404 |
| ED-327057 | 3-D405 |
| ED-327057 | 3-D403 |
| ED-327057 | 6-D208 |
| ED-327057 | 6-D207 |
| ED-327057 | 6-D206 |
| ED-327057 | 6-D205 |
| ED-327057 | 6-D213 |
| ED-327057 | 6-D215 |
| ED-327057 | 6-D216 |
| ED-327057 | 6-D217 |
| ED-327057 | 6-1E |
| ED-327057 | 6-D204 |
| ED-327057 | 6-D212 |
| ED-327057 | 6-D214 |
| ED-327057 | 6-D210 |
| ED-336805 | 7-D8 |
| ED-336805 | 11-D3 |
| ED-336805 | 11-D4 |
| ED-336805 | 11-D2 |
| ED-336805 | 11-D1 |
| ED-562386 | 1-D107 |
| ED-710903 | 1-D110J |
| ED-710904 | 6-D10 |
| ED-710913 | 1-E110U |
| ED-710913 | 3-D401 |
| ED-710974 | 1-D101 |
| ED-710975 | 1-D103 |
| ED-710975 | 1-D108 |
| ED-710978 | 2-D409 |
| ED-710979 | 2-D411 |
| ED-710986 | 6-D202 |
| ED-710988 | 6-D203 |
| ED-710997 | 11-D6 |
| ED-710999 | 11-D5 |
| ED-711092 | 1-D106 |
| ED-711092 | 1-D105 |
| ED-711138 | 4-D424 |
| ED-711138 | 4-D418 |
| ED-711138 | 4-D421 |
| ED-711138 | 4-Q416 |
| ED-711138 | 4-D417 |
| ED-711138 | 4-D419 |
| ED-711138 | 4-D423 |
| ED-711138 | 4-D422 |
| ED-711138 | 4-D420 |
| ED-711138 | 4-Q415 |
| ED-711161 | 7-D7 |
| EE-315329 | 14-17x |
| EE-320526 | 14-18x |
| EE-707211 | 13-4 |
| EE-710970 | 1-2J |
| EE-711072 | 1-2U |
| EF-424811 | 7-F301J |
| EF-424811 | 7-F201J |
| EF-424811 | 11-F1C |
| EF-623103 | 11-F1E |
| EF-623125 | 7-F301U |
| EF-623125 | 7-F201U |
| EF-668474 | 13-F2 |
| EH-710971 | 1-CF3U |
| EH-710971 | 1-CF1U |
| EH-710971 | 1-CF2U |
| EH-710972 | 1-CF1S |
| EH-710972 | 1-CF3S |
| EH-710972 | 1-CF2S |
| EH-711084 | 1-CF4 |
| EI-202218 | 1-IC102 |
| EI-306728 | 1-IC104 |
| EI-317653 | 6-IC204 |
| EI-337228 | 6-IC202 |
| EI-337228 | 6-IC307 |
| EI-337228 | 6-IC207 |
| EI-337417 | 1-IC101 |
| EI-343371 | 6-IC206 |
| EI-344436 | 1-IC105 |
| EI-344437 | 2-IC402 |
| EI-344438 | 1-IC103 |
| EI-707240 | 6-IC208 |
| EI-711077 | 1-X1 |
| EI-711089 | 1-IC105 |
| EI-711127 | 3-IC401 |
| EI-711128 | 3-X401 |
| EI-711149 | 6-IC203 |
| EI-711168 | 7-IC201 |
| EI-711168 | 7-IC301 |
| EI-711177 | 11-IC1 |
| EI-711179 | 11-IC2 |
| EJ-315331 | 14-19X |
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| EJ-711054 | 13-7 |
| EJ-711141 | 6-2 |
| EJ-711171 | 8-J1 |
| EM-711114 | 2-FLD |
| EO-707227 | 6-LP201 |
| EO-707227 | 6-LP301 |
| EO-711073 | 1-T1 |
| EO-711074 | 1-T2 |
| EO-711080 | 1-L3 |
| EO-711081 | 1-L2 |
| EO-711082 | 1-T4 |
| EO-711083 | 1-T5 |
| EO-711184 | 12-1 |
| ER-303342 | 7-R210 |
| ER-303342 | 7-R310 |
| ER-324251 | 1-R49 |
| ER-324251 | 1-R106 |
| ER-336919 | 1-R40 |
| ER-336919 | 6-R271 |
| ER-337754 | 7-R209U |
| ER-337754 | 7-R309U |
| ER-707231 | 1-T3 |
| ER-710900 | 11-R2 |
| ER-710900 | 11-R1 |
| ER-710901 | 11-R5U |
| ER-710911 | 11-R5E |
| ER-711076 | 1-SVR4 |
| ER-711076 | 1-SVR1 |
| ER-711076 | 1-SVR3 |
| ER-711117 | 2-RA404 |
| ER-711117 | 2-RA405 |
| ER-711118 | 2-RA403 |
| ER-711118 | 3-RA401 |
| ER-711119 | 2-RA406 |
| ER-711120 | 2-RA407 |
| ER-711129 | 3-RA402 |
| ER-711159 | 7-R208 |
| ER-711159 | 7-R308 |
| ER-711169 | 7-R209E |
| ER-711169 | 7-R309E |
| ER-711183 | 11-R7 |
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| ES-336780 | 4-S9 |
| ES-336780 | 4-S7 |
| ES-336780 | 4-S8 |
| ES-336780 | 4-S17 |
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| ES-336780 | 4-S16 |
| ES-336780 | 4-S11 |
| ES-336780 | 4-S13 |
| ES-336780 | 5-S24 |
| ES-336780 | 5-S23 |
| ES-336780 | 5-S21 |
| ES-336780 | 5-S22 |
| ES-336780 | 5-S25 |
| ES-336780 | 5-S20 |
| ES-710966 | 13-11 |
| ES-711056 | 13-12 |
| ES-711172 | 9-1 |
| ES-711173 | 10-1 |
| ET-246846 | 1-Q111 |
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| ET-246846 | 1-Q102 |
| ET-246846 | 1-Q112 |
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| ET-246846 | 6-Q304 |
| ET-246846 | 6-Q210 |
| ET-246846 | 6-Q209 |
| ET-307195 | 7-Q201 |
| ET-307195 | 7-Q301 |
| ET-310165 | 7-Q303 |
| ET-310165 | 7-Q203 |
| ET-310166 | 7-Q302 |
| ET-310166 | 7-Q202 |
| ET-316643 | 7-Q4 |
| ET-316643 | 7-Q2 |
| ET-318604 | 2-Q420 |
| ET-322244 | 7-Q3 |
| ET-322778 | 1-Q115 |
| ET-322778 | 2-Q427 |
| ET-322778 | 2-Q446 |
| ET-322778 | 6-Q213 |
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| ET-322778 | 6-Q211 |
| ET-327714 | 11-Q1 |
| ET-328265 | 1-Q101 |
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| ET-338410 | 6-Q307 |
| ET-338410 | 6-Q207 |
| ET-711091 | 1-Q116 |
| ET-711091 | 1-Q107 |
| ET-711091 | 2-Q439 |
| ET-711091 | 2-Q448 |
| ET-711091 | 2-Q421 |
| ET-711091 | 2-Q434 |
| ET-711091 | 2-Q433 |
| ET-711091 | 2-Q423 |
| ET-711091 | 2-Q432 |
| ET-711091 | 2-Q424 |
| ET-711091 | 2-Q449 |
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| ET-711091 | 3-Q405 |
| ET-711091 | 3-Q407 |
| ET-711091 | 3-Q406 |
| ET-711091 | 3-Q404 |
| ET-711091 | 3-Q411 |
| ET-711091 | 3-Q410 |
| ET-711091 | 3-Q409 |
| ET-711091 | 3-Q408 |
| ET-711091 | 4-Q450 |
| ET-711091 | 4-Q451 |
| ET-711091 | 6-Q214 |
| ET-711091 | 6-Q216 |
| ET-711094 | 1-Q110 |
| ET-711116 | 1-Q117 |
| ET-711116 | 2-Q429 |
| ET-711116 | 2-Q444 |
| ET-711116 | 2-Q438 |
| ET-711116 | 2-Q443 |
| ET-711116 | 2-Q431 |
| ET-711116 | 2-Q437 |
| ET-711116 | 2-Q441 |
| ET-711116 | 2-Q430 |
| ET-711116 | 2-Q445 |
| ET-711116 | 2-Q442 |
| ET-711116 | 2-Q436 |
| ET-711116 | 2-Q435 |
| ET-711116 | 2-Q425 |
| ET-711116 | 2-Q426 |
| ET-711116 | 3-Q416 |
| ET-711116 | 3-Q419 |
| ET-711116 | 3-Q415 |
| ET-711116 | 3-Q403 |
| ET-711116 | 3-Q417 |
| ET-711116 | 3-Q413 |
| ET-711116 | 3-Q414 |
| ET-711116 | 3-Q418 |
| ET-711116 | 3-Q402 |
| ET-711116 | 3-Q412 |
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| EV-710985 | 6-VR203 |
| EV-710994 | 7-VR201 |
| EV-710994 | 7-VR301 |
| EW-201515 | 13-85 |
| EW-306427 | 13-8J |
| EW-306428 | 13-8U |
| EW-313882 | 13-8E |
| EW-343363 | 13-8C |
| EZ-706210 | 13-9U |
| EZ-706319 | 13-9C |
| SA-711043 | 13-10 |
| SK-344330C | 14-7 |
| SK-344798 | 14-5 |
| SK-344799 | 14-6 |
| SK-711007 | 14-8 |
| SK-711008 | 14-9 |
| SK-711009 | 14-10 |
| SK-711010 | 14-11 |
| SK-711012 | 14-12 |
| SK-711013 | 14-13 |
| SK-711014 | 14-14 |
| SK-711015 | 14-15 |
| SP-710950 | 14-16 |
| SP-710951 | 13-2U |
| SP-710952 | 13-2J |
| SP-710953 | 13-2C |
| SP-710955 | 13-2A |
| SP-710956 | 13-2E |
| SP-710957 | 13-2S |
| SZ-345569 | 14-3x |
| SZ-711005 | 14-4 |
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| TA-711186 | 14-20x |

## SECTION 3

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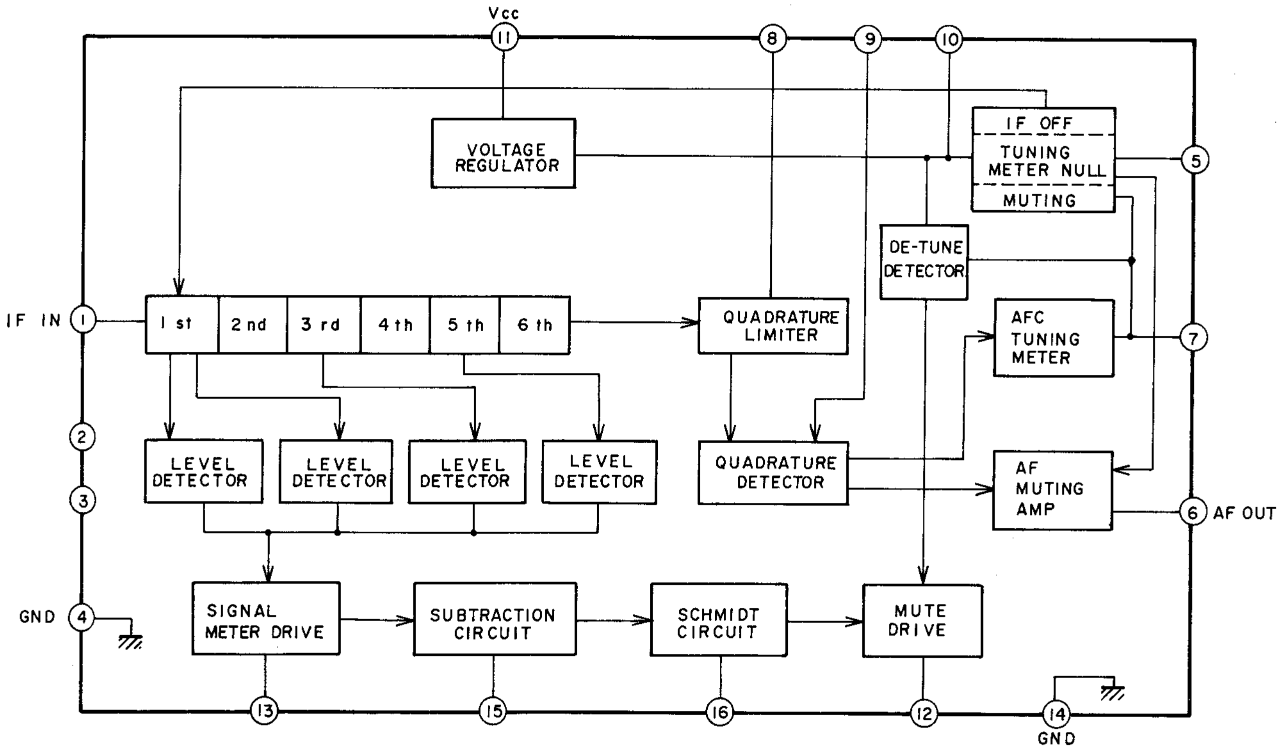
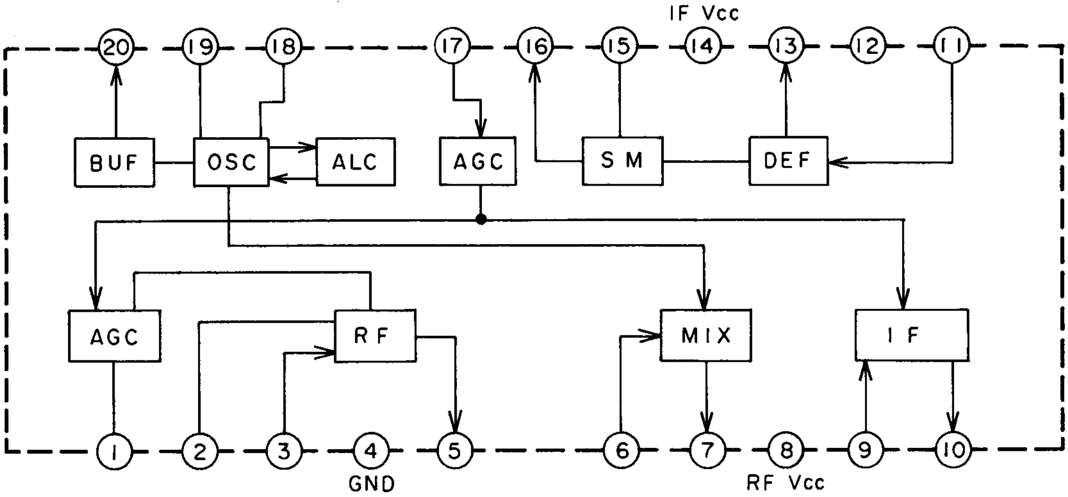
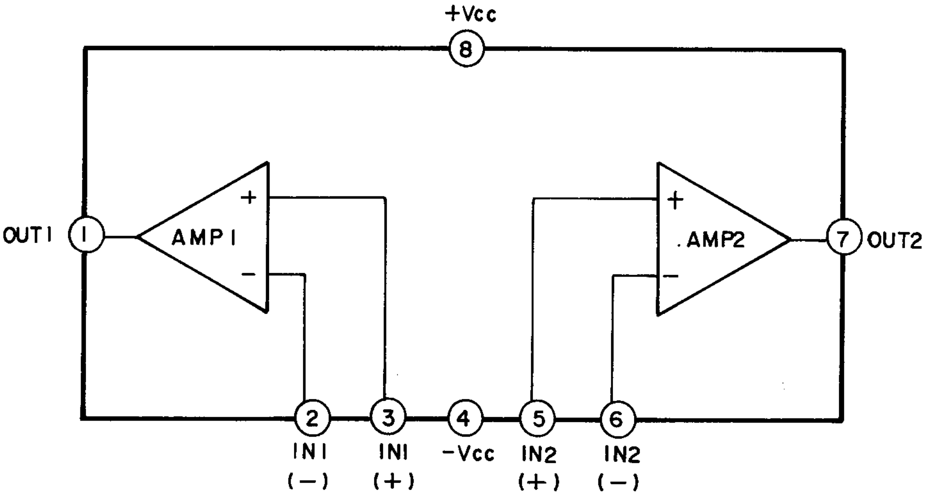
**LA1235**


Vcc
11
8
9
10
VOLTAGE REGULATOR
IF OFF
TUNING METER NULL
MUTING
5
DE-TUNE DETECTOR
IF IN
1
1 st
2 nd
3 rd
4 th
5 th
6 th
QUADRATURE LIMITER
AFC TUNING METER
7
2
3
LEVEL DETECTOR
LEVEL DETECTOR
LEVEL DETECTOR
LEVEL DETECTOR
QUADRATURE DETECTOR
AF MUTING AMP
6
AF OUT
GND
4
SIGNAL METER DRIVE
SUBTRACTION CIRCUIT
SCHMIDT CIRCUIT
MUTE DRIVE
13
15
16
12
14
GND

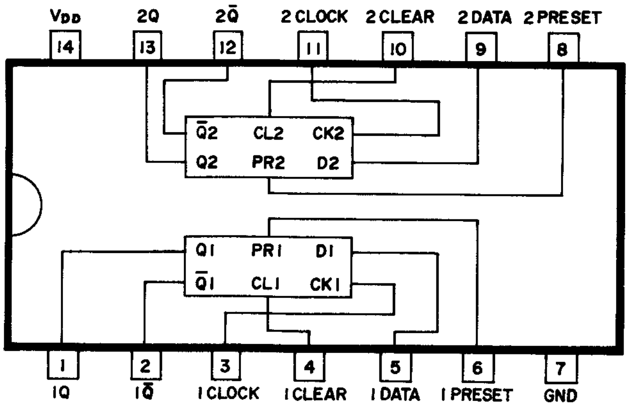
## LA1245

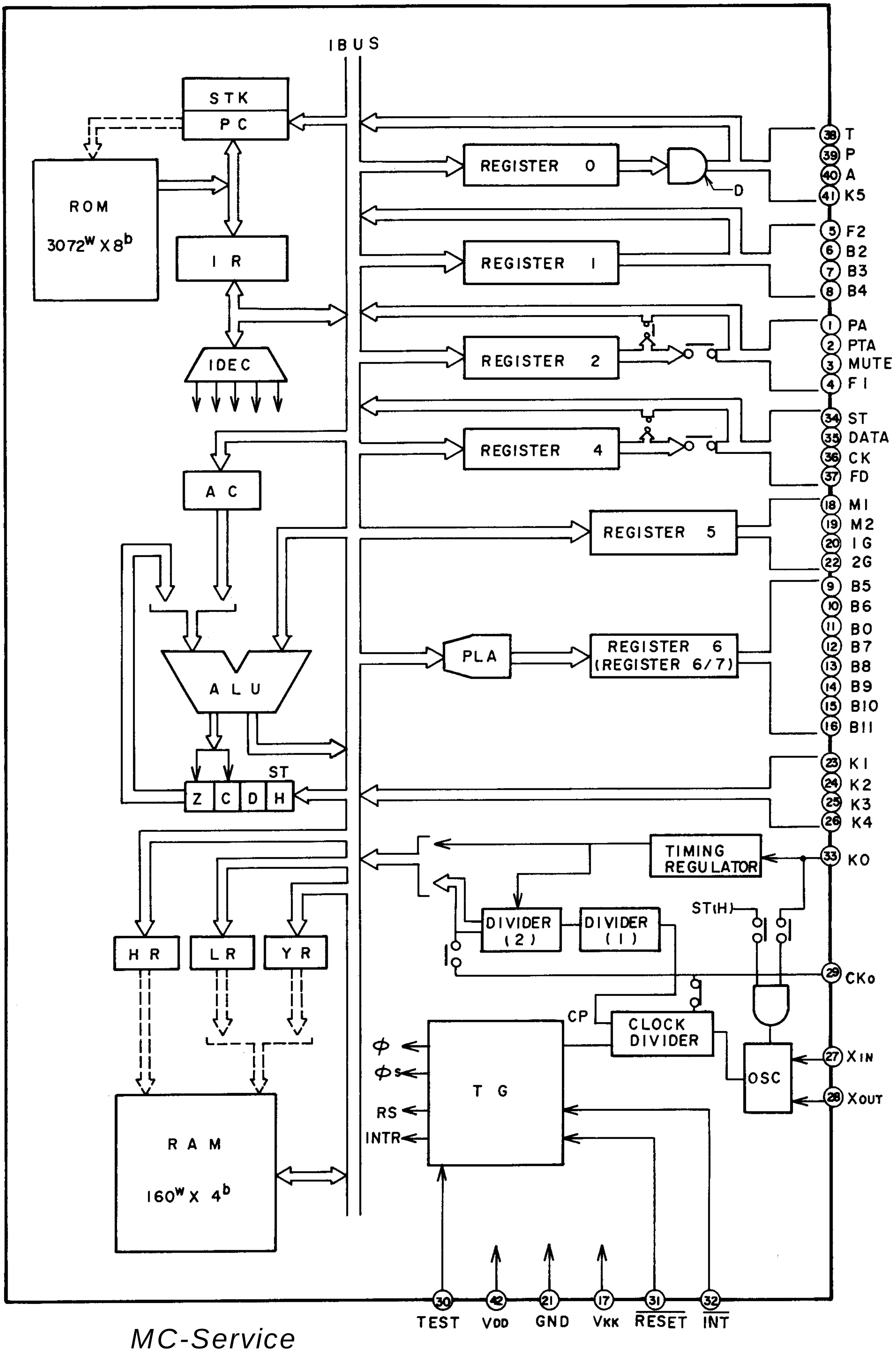

IF Vcc
20
19
18
17
16
15
14
13
12
11
BUF
OSC
ALC
AGC
S M
DEF
AGC
RF
MIX
I F
1
2
3
4
5
6
7
8
9
10
GND
RF Vcc

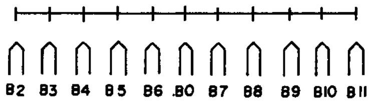
## M5218L


+Vcc
8
OUT1
1
AMP1
+
−
AMP2
+
−
7
OUT2
2
IN1 (−)
3
IN1 (+)
4
−Vcc
5
IN2 (+)
6
IN2 (−)

## TC4013BP


VDD
2Q
2Q̄
2 CLOCK
2 CLEAR
2 DATA
2 PRESET
14
13
12
11
10
9
8
Q̄2
CL2
CK2
Q2
PR2
D2
Q1
PR1
D1
Q̄1
CL1
CK1
1
2
3
4
5
6
7
1Q
1Q̄
1 CLOCK
1 CLEAR
1 DATA
1 PRESET
GND


IBUS
STK
PC
ROM
3072W X 8b
IR
IDEC
AC
ALU
Z C D H
ST
HR
LR
YR
RAM
160W X 4b
REGISTER 0
D
REGISTER 1
REGISTER 2
REGISTER 4
REGISTER 5
PLA
REGISTER 6
(REGISTER 6/7)
TIMING REGULATOR
DIVIDER (2)
DIVIDER (1)
ST(H)
CP
CLOCK DIVIDER
TG
OSC
φ
φs
RS
INTR
38 T
39 P
40 A
41 K5
5 F2
6 B2
7 B3
8 B4
1 PA
2 PTA
3 MUTE
4 F1
34 ST
35 DATA
36 CK
37 FD
18 M1
19 M2
20 1G
22 2G
9 B5
10 B6
11 B0
12 B7
13 B8
14 B9
15 B10
16 B11
23 K1
24 K2
25 K3
26 K4
33 K0
29 CKo
27 XIN
28 XOUT
30 TEST
42 VDD
21 GND
17 VKK
31 RESET
32 INT

| Pin No. | Symbol | Description |
|---|---|---|
| 1 | PA | Common Segments Display in PHONO, AUX |
| 2 | PTA | Common Segments Display in PHONO, TUNER, AUX |
| 3 | MUTE | |
| 4 | F1 | Function Switch Control Signal (see Note) |
| 5 | F2 | |
| 6 | B2 | Balance Display Data<br> |
| 7 | B3 | |
| 8 | B4 | |
| 9 | B5 | |
| 10 | B6 | |
| 11 | B0 | |
| 12 | B7 | |
| 13 | B8 | |
| 14 | B9 | |
| 15 | B10 | |
| 16 | B11 | |
| 17 | Vkk | −16V |
| 18 | M1 | Tape Monitor SW Select Signal |
| 19 | M2 | Tape Monitor Display Data |
| 20 | 1G | DIGIT Signal output |
| 21 | GND | |
| 22 | 2G | DIGIT Signal output |
| 23 | K1 | Phono, Tape Monitor, Vol. (up)<br>Key Input |
| 24 | K2 | Tuner, Vol. (down), Fader |
| 25 | K3 | AUX, Blance (L) |
| 26 | K4 | Balance (R) |
| 27 | Xin | Clock OSC |
| 28 | Xout | |
| 29 | CK0 | unused |
| 30 | TEST | unused (To GND) |
| 31 | $\overline{\text{RESET}}$ | To +5V |
| 32 | $\overline{\text{INT}}$ | |
| 33 | K0 | |
| 34 | STROB | Output Control Signal for Elec. Volume. |
| 35 | DATA | |
| 36 | Clock | |
| 37 | FD | Segments Display for Fader |
| 38 | T | Segments use in TUNER only |
| 39 | P | Segments use in PHONO only |
| 40 | A | Segments use in AUX only |
| 41 | K5 | Tape Monitor, Fader |
| 42 | VDD | +5V |

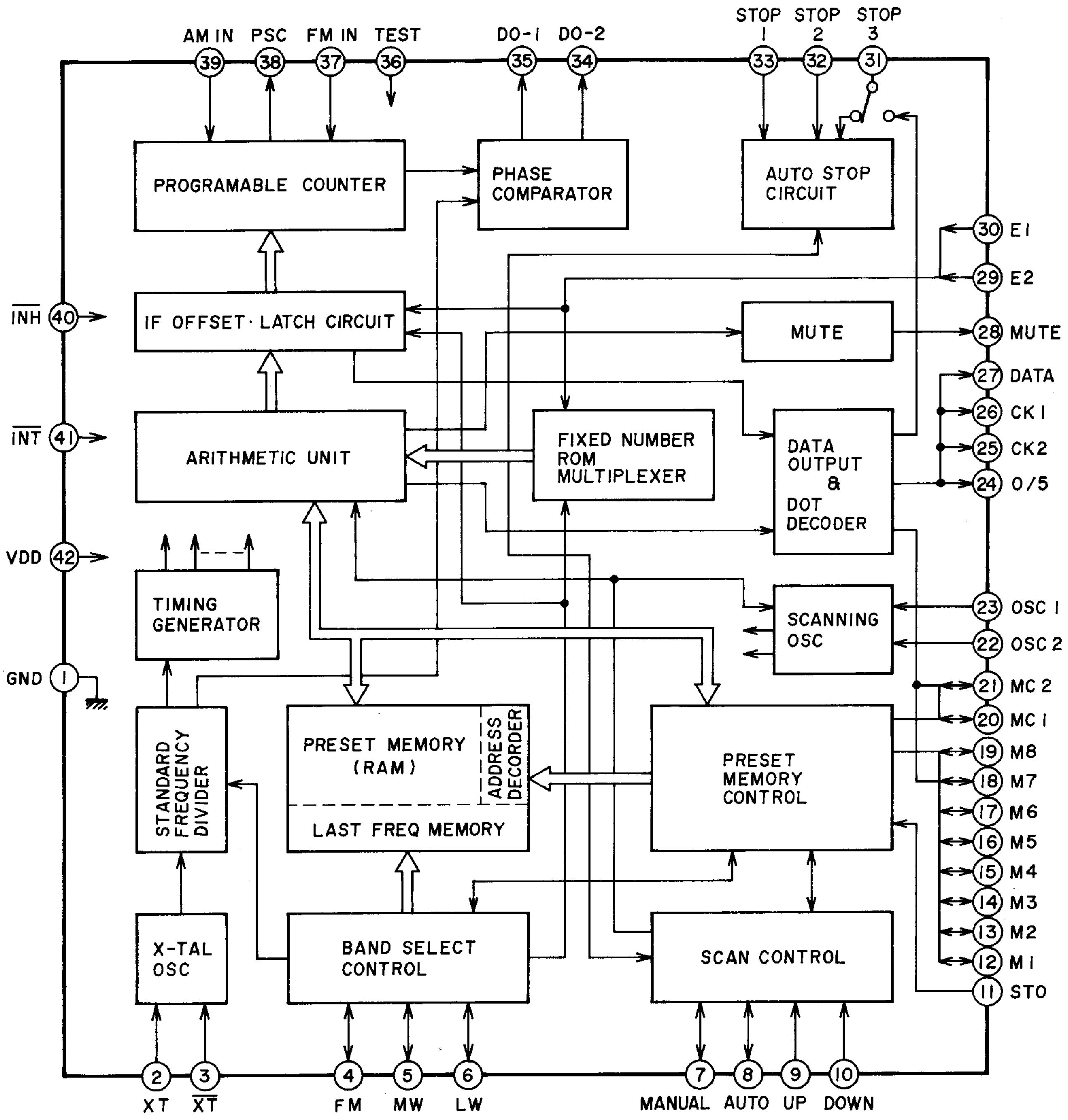
**NOTE:** Pin No. 4 and 5 controls Input Mode Selector Switching IC203 (μPD4052BC).

| Pin No. | Symbol |
|---|---|
| 4 | F1 |
| 5 | F2 |

IC203 Function

| Pin No. | Symbol | Mode: PHONO | TUNER | AUX |
|---|---|---|---|---|
| 9 | B | L | L | H |
| 10 | A | L | H | L |

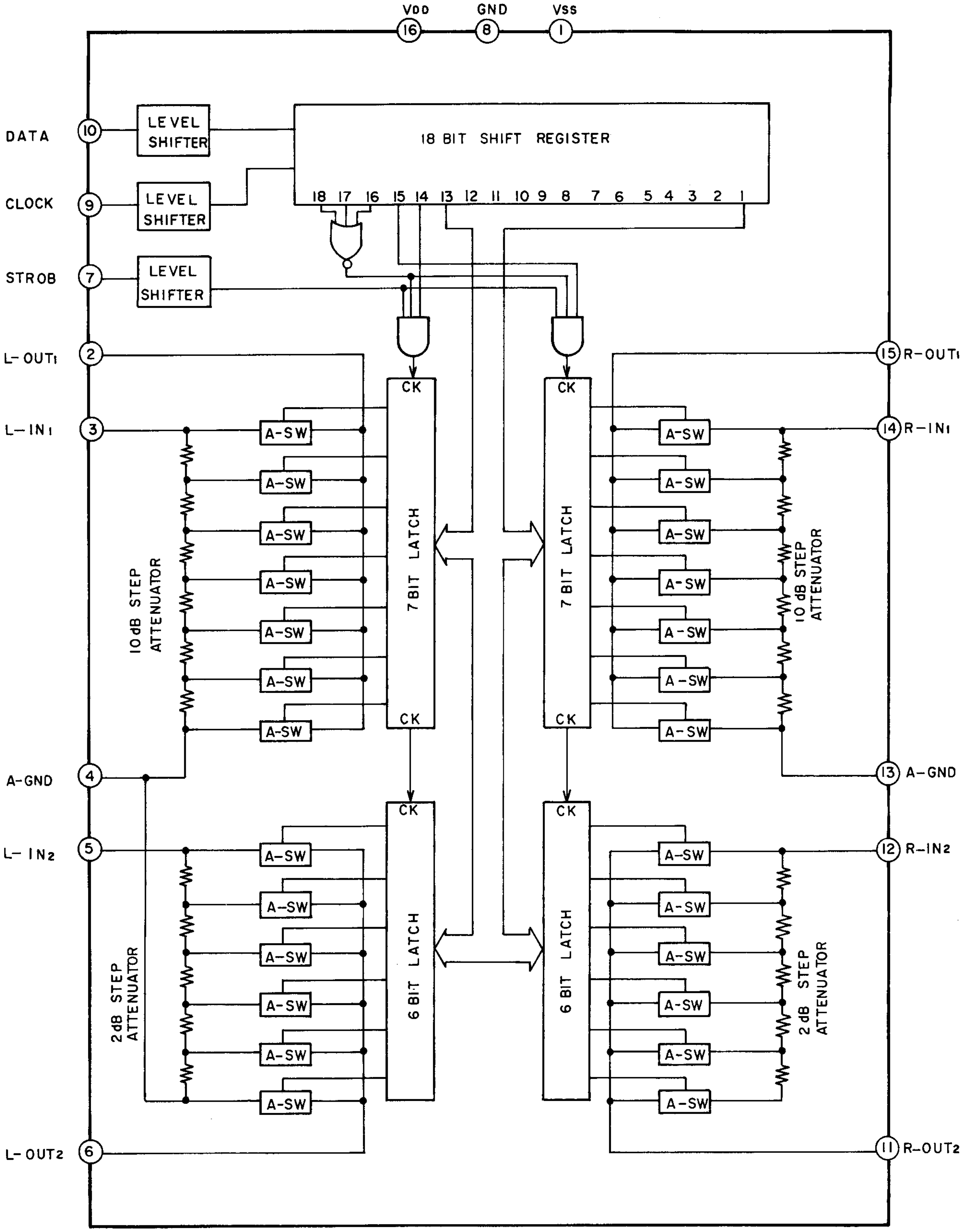
(L = −16V, H = 0V)


AM IN
PSC
FM IN
TEST
DO-1
DO-2
STOP 1
STOP 2
STOP 3
39
38
37
36
35
34
33
32
31
PROGRAMABLE COUNTER
PHASE COMPARATOR
AUTO STOP CIRCUIT
30 E1
29 E2
INH 40
IF OFFSET·LATCH CIRCUIT
MUTE
28 MUTE
27 DATA
26 CK1
25 CK2
24 0/5
INT 41
ARITHMETIC UNIT
FIXED NUMBER ROM MULTIPLEXER
DATA OUTPUT & DOT DECODER
VDD 42
TIMING GENERATOR
SCANNING OSC
23 OSC 1
22 OSC 2
GND 1
STANDARD FREQUENCY DIVIDER
PRESET MEMORY (RAM)
ADDRESS DECORDER
LAST FREQ MEMORY
PRESET MEMORY CONTROL
21 MC 2
20 MC 1
19 M8
18 M7
17 M6
16 M5
15 M4
14 M3
13 M2
12 M1
11 STO
X-TAL OSC
BAND SELECT CONTROL
SCAN CONTROL
2 XT
3 XT
4 FM
5 MW
6 LW
7 MANUAL
8 AUTO
9 UP
10 DOWN

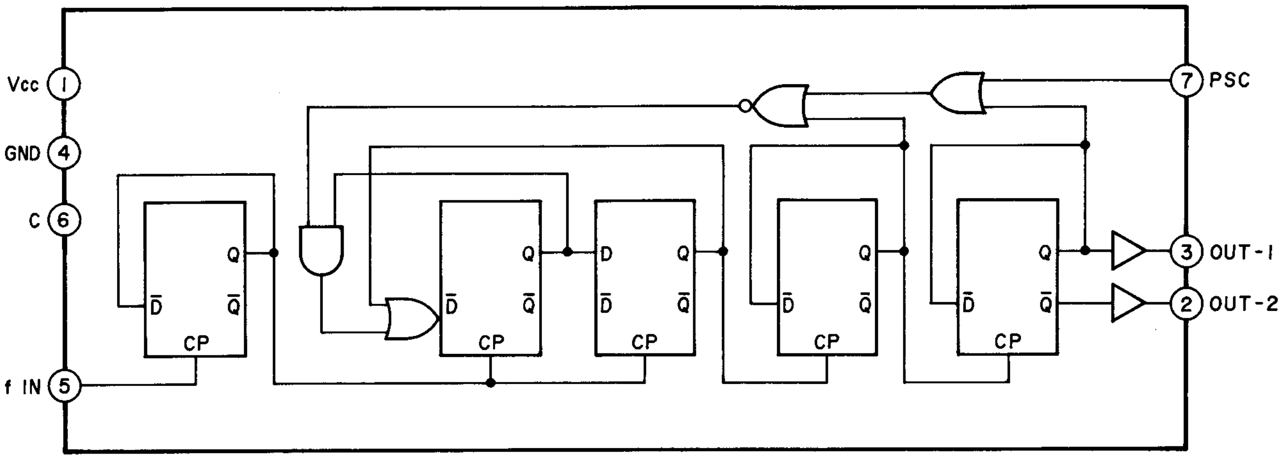
*MC-Service*

| Pin No. | Symbol | Meaning | Function |
|---|---|---|---|
| 1 | GND | Ground | |
| 2 | XT | X-TAL OSC Terminals | Input Terminal of Standard Frequency OSC<br>(X-TAL: 7.2MHz) |
| 3 | XT | | |
| 4 | FM | FM Band Designation Input | Band Selector<br>ACTIVE “High” |
| 5 | MW | MW Band Designation Input | |
| 6 | LW | LW Band Designation Input | |
| 7 | Manual | Manual Tuning Mode | Manual/Auto Tuning Selector |
| 8 | Auto | Auto Tuning Mode | |
| 9 | UP | UP Operation Key Input | UP/DOWN Tuning Selector |
| 10 | Down | Down Operation Key Input | |
| 11 | STO | Memory Store Command Input | Memory at preset memory operation |
| 12 ~ 19 | M1 ~ M8 | Preset Memory Channel Designation Inputs | Random Access for 16-Preset-Memory with the inputs of MC1/MC2 |
| 20 | MC1 | Memory Control Input | ⑧ Stations (FM/AM)/ ⑯ Stations (FM + MW + LW)<br>Preset Memory Selector |
| 21 | MC2 | | |
| 22 | OSC2 | AM OSC Terminal | CR Connector Terminal for AM Search Scan Speed |
| 23 | OSC1 | FM OSC Terminal | CR Connection Terminal for FM Search Scan Speed |
| 24 | 0/5 | FM 50kHz Output | Level “H” Output for 50kHz Step<br>(S. Africa and Europe area) |
| 25 | CK2 | Receiving Frequency Data Serial Output | Supply Serial Data & Timing Clock to TD6301AP<br>(Receiving Frequency Digital Display Driver) |
| 26 | CK1 | | |
| 27 | Data | | |
| 28 | Mute | Muting Signal Output | Level “H” Output when Muting |
| 29 | E2 | Area Desgination Input | Area Selector (Japan, US, Europe, S. Africa) |
| 30 | E1 | | |
| 31 | Stop 3 | AM IF Signal Input | Stops Auto Search at AM IF (450kHz) |
| 32 | Stop 2 | Auto Search Stop Signal Input | Stops Auto Search at Level “H” while Level “H” at Stop 1 |
| 33 | Stop 1 | Scan Speed Slow-Down Input | 1/2 Speed-Down of Auto Search at Level “H” |
| 34 | DO-2 | Phase Comparator Output | Phase Comparator Output |
| 35 | DO-1 | | |
| 36 | Test | Test Terminal | Test Mode at Level “H” |
| 37 | FM in | FM Programable Counter Input | Connected to Prescaler (TD6104P) Output |
| 38 | PSC | Prescaler Control Output | Count-Down (1/30, 1/32)<br>Designation Output for Prescaler |
| 39 | AM in | AM Programable Counter Input | AM Local OSC Signal Input |
| 40 | $\overline{\text{INH}}$ | Inhibit Input | Normal at Level “H”<br>Inhibit at Level “L” |
| 41 | $\overline{\text{INT}}$ | Initialize Input | Normal at Level “H”<br>Initialize at Level “L” |
| 42 | VDD | Power Terminal | +5V is supplied |

## TC9154P

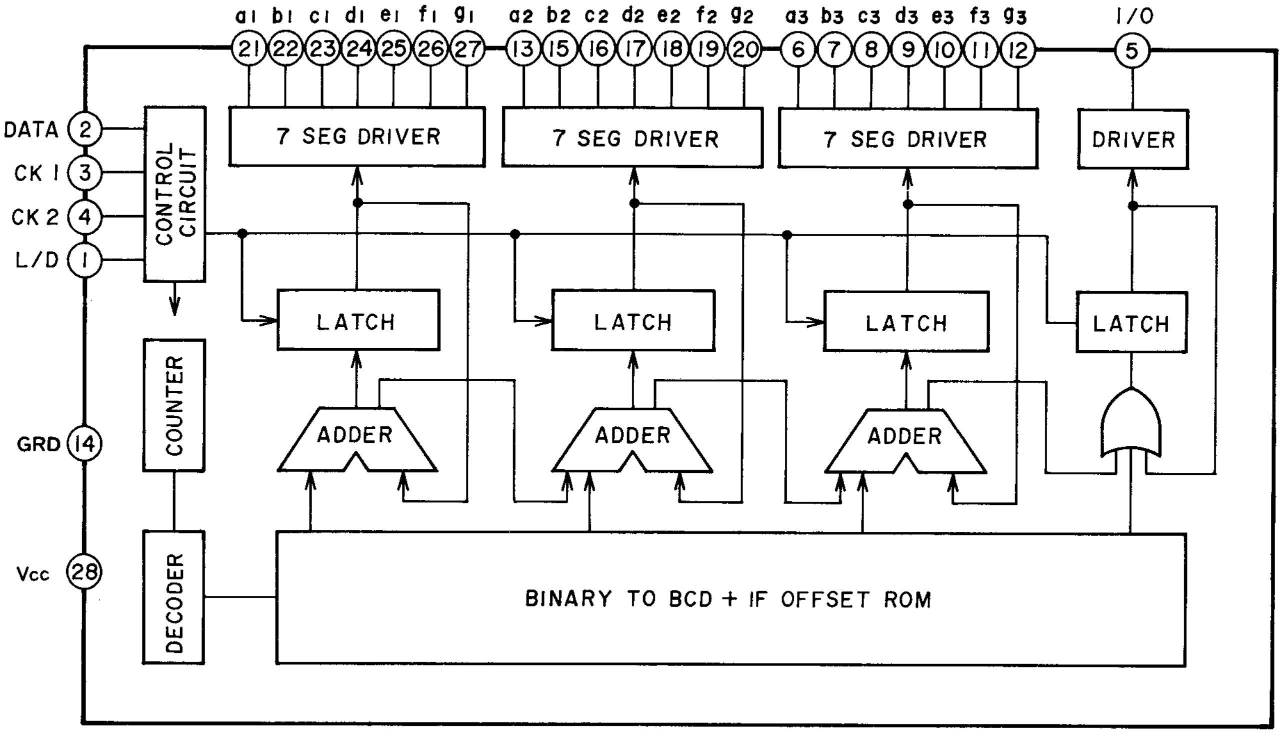

VDD
GND
VSS
16
8
1
DATA
10
CLOCK
9
STROB
7
LEVEL SHIFTER
LEVEL SHIFTER
LEVEL SHIFTER
18 BIT SHIFT REGISTER
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
L-OUT1
2
L-IN1
3
A-GND
4
L-IN2
5
L-OUT2
6
R-OUT1
15
R-IN1
14
A-GND
13
R-IN2
12
R-OUT2
11
CK
7 BIT LATCH
CK
CK
7 BIT LATCH
CK
CK
6 BIT LATCH
CK
6 BIT LATCH
A-SW
10dB STEP ATTENUATOR
10 dB STEP ATTENUATOR
2dB STEP ATTENUATOR
2dB STEP ATTENUATOR

## TD6104P


Vcc
1
GND
4
C
6
f IN
5
Q
D̄
Q̄
CP
D
7
PSC
3
OUT-1
2
OUT-2

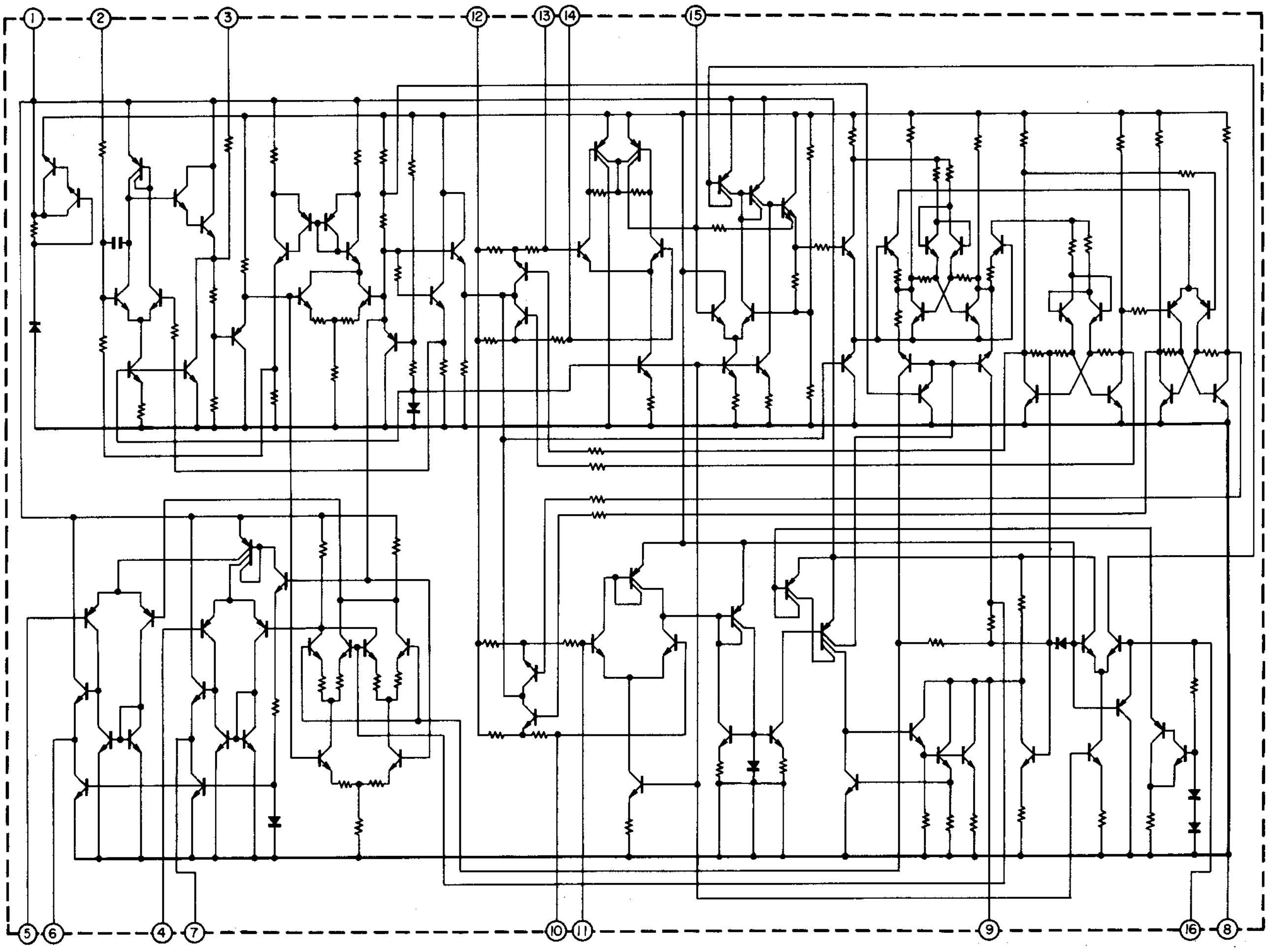
| Pin No. | Symbol | Description |
|---|---|---|
| 5 | Fin | FM Local OSC Input |
| 3 | OUT-1 | Count-Down Frequency Output (fin/30 or fin/32) |
| 2 | OUT-2 | Inverted Output of OUT-1 |
| 7 | PCS | Count-Down-Ratio Switch Signal Input<br>1/32 at Vpsc $\geqq$ 2V<br>1/30 at Vpsc $\leqq$ 1V |
| 6 | C | Bypass condenser terminal for bias circuit |
| 1 | Vcc | +5V |
| 4 | GND | Ground |

## TD6301AP

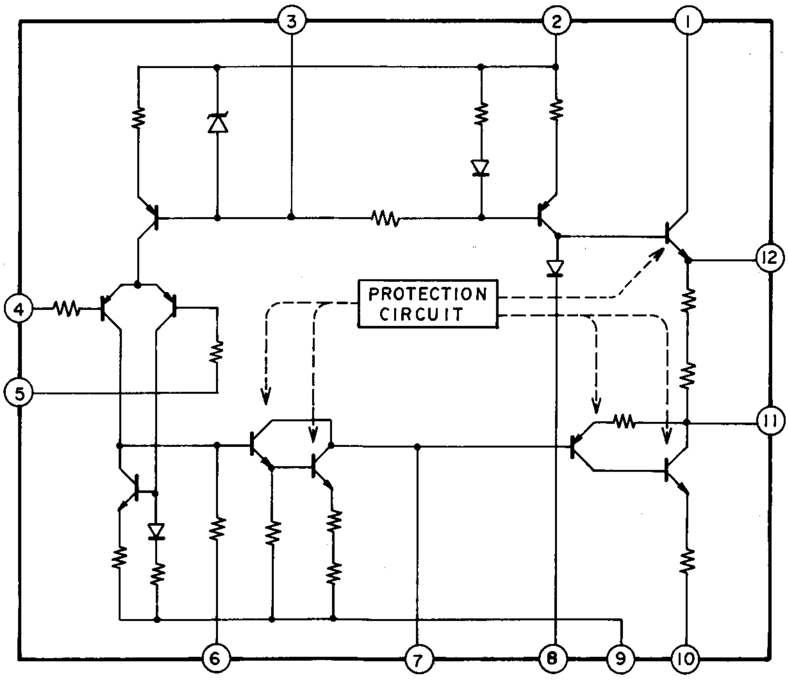

a1 b1 c1 d1 e1 f1 g1
21 22 23 24 25 26 27
a2 b2 c2 d2 e2 f2 g2
13 15 16 17 18 19 20
a3 b3 c3 d3 e3 f3 g3
6 7 8 9 10 11 12
1/0
5
DATA 2
CK 1 3
CK 2 4
L/D 1
GRD 14
Vcc 28
CONTROL CIRCUIT
COUNTER
DECODER
7 SEG DRIVER
7 SEG DRIVER
7 SEG DRIVER
DRIVER
LATCH
LATCH
LATCH
LATCH
ADDER
ADDER
ADDER
BINARY TO BCD + IF OFFSET ROM

| Pin No. | Symbol | Description |
|---|---|---|
| 1 | L/D | Output Select Signal Input Terminal (To Change the Output for various Display such as LED, FL & LCD) |
| 2 | Data | Receiving Frequency Data Input Terminal (Serial Input from System Controller LSI) |
| 3 | CK1 | Control Timing Input Terminal for Receiving Frequency Data Input (Simultaneously W/Data from System Controller LSI) |
| 4 | CK2 | |
| 5 | 1/0 | Segment Driver Output Terminal for:<br>FM: 100$^{\mathrm{S}}$ MHz<br>AM: 1000$^{\mathrm{S}}$ kHz |
| 6<br>≀<br>12 | a3<br>≀<br>g3 | 7 Segment Driver Output Terminals for:<br>FM: 10$^{\mathrm{S}}$ MHz<br>AM: 100$^{\mathrm{S}}$ kHz |
| 13<br>15<br>≀<br>20 | a2<br>≀<br>g2 | 7 Segment Driver Output Terminals for:<br>FM: 1$^{\mathrm{S}}$ MHz<br>AM: 10$^{\mathrm{S}}$ kHz |
| 21<br>≀<br>27 | a1<br>≀<br>g1 | 7 Segment Driver Output Terminals for:<br>FM: 100$^{\mathrm{S}}$ kHz<br>AM: 1$^{\mathrm{S}}$ kHz |
| 14 | Vcc | −16.8V |
| 28 | GND | −16.8V |

## μPC1161C3

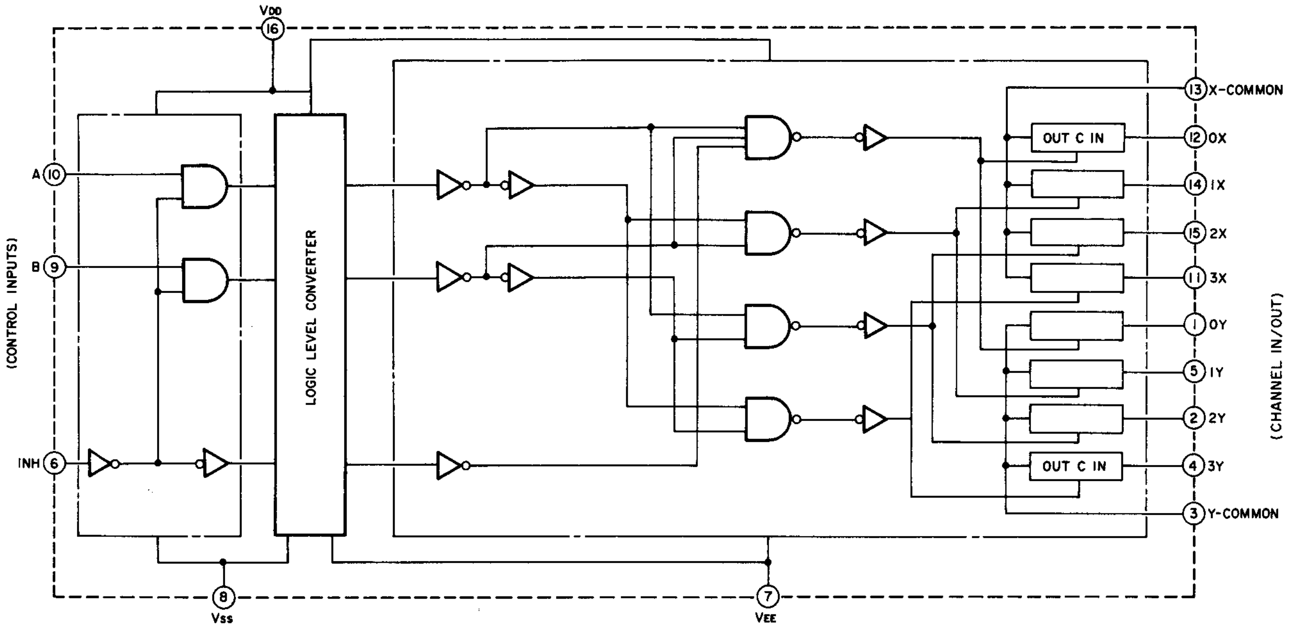

1
2
3
12
13
14
15
5
6
4
7
10
11
9
16
8

## μPC1270H

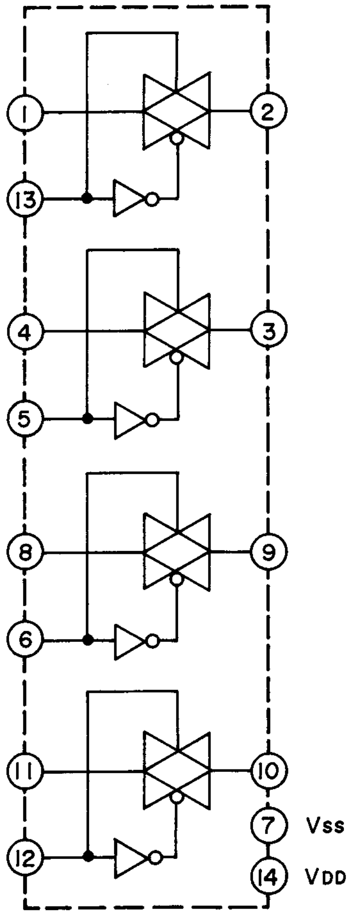

3
2
1
12
4
5
PROTECTION CIRCUIT
11
6
7
8
9
10

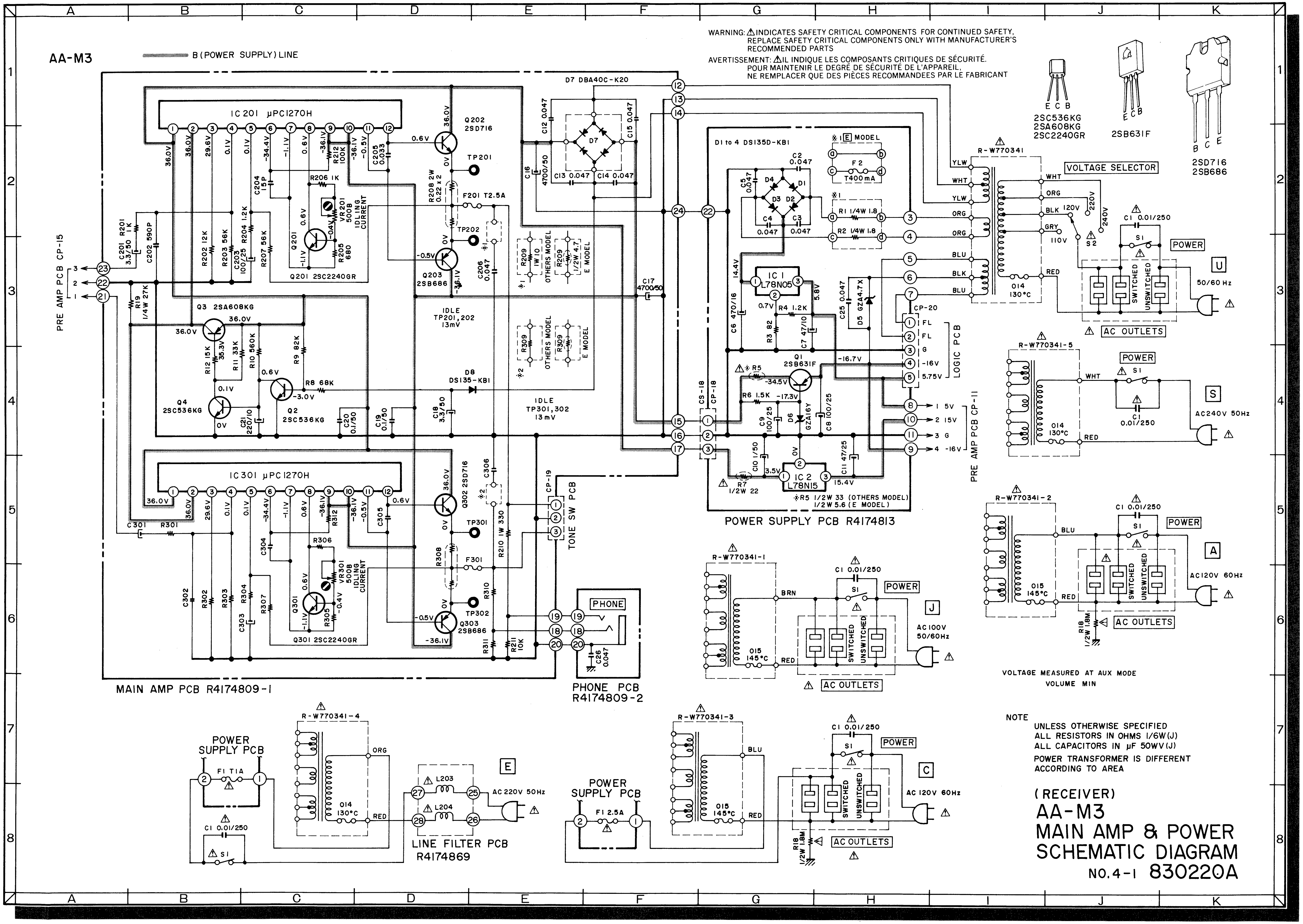
MC-Service

## μPD4052BC


VDD
16
A 10
B 9
INH 6
(CONTROL INPUTS)
LOGIC LEVEL CONVERTER
8
VSS
7
VEE
OUT C IN
OUT C IN
13 X-COMMON
12 0X
14 1X
15 2X
11 3X
1 0Y
5 1Y
2 2Y
4 3Y
3 Y-COMMON
(CHANNEL IN/OUT)

## μPD4066BC


1
2
13
4
3
5
8
9
6
11
10
12
7 Vss
14 VDD


AA-M3
B (POWER SUPPLY) LINE
IC201 μPC1270H
IC301 μPC1270H
Q202 2SD716
Q203 2SB686
Q302 2SD716
Q303 2SB686
Q201 2SC2240GR
Q301 2SC2240GR
Q3 2SA608KG
Q4 2SC536KG
Q2 2SC536KG
VR201 500B IDLING CURRENT
VR301 500B IDLING CURRENT
R208 2W 0.22 x 2
F201 T2.5A
F301
TP201
TP202
TP301
TP302
IDLE TP201,202 13mV
IDLE TP301,302 13mV
D7 DBA40C-K20
D8 DS135-KB1
C16 4700/50
C17 4700/50
PRE AMP PCB CP-15
TONE SW PCB CP-19
PHONE
PHONE PCB R4174809-2
MAIN AMP PCB R4174809-1
D1 to 4 DS135D-KB1
※1 E MODEL
F2 T400mA
R1 1/4W 1.8
R2 1/4W 1.8
IC1 L78N05
IC2 L78N15
Q1 2SB631F
D5 GZA4.7X
D6 GZA16Y
R7 1/2W 22
※R5 1/2W 33 (OTHERS MODEL) 1/2W 5.6 (E MODEL)
CS-18
CP-18
CP-20
LOGIC PCB
PRE AMP PCB CP-11
POWER SUPPLY PCB R4174813
R-W770341
VOLTAGE SELECTOR
120V 220V 240V 110V
S2
C1 0.01/250
S1
POWER
U
50/60 Hz
AC OUTLETS
SWITCHED
UNSWITCHED
014 130°C
2SC536KG
2SA608KG
2SC2240GR
2SB631F
2SD716
2SB686
E C B
B C E
R-W770341-5
S
AC240V 50Hz
R-W770341-2
A
AC120V 60Hz
015 145°C
R18 1/2W 1.8M
R-W770341-1
J
AC100V 50/60Hz
R-W770341-4
E
AC 220V 50Hz
LINE FILTER PCB R4174869
L203
L204
POWER SUPPLY PCB
F1 T1A
F1 2.5A
R-W770341-3
C
AC 120V 60Hz

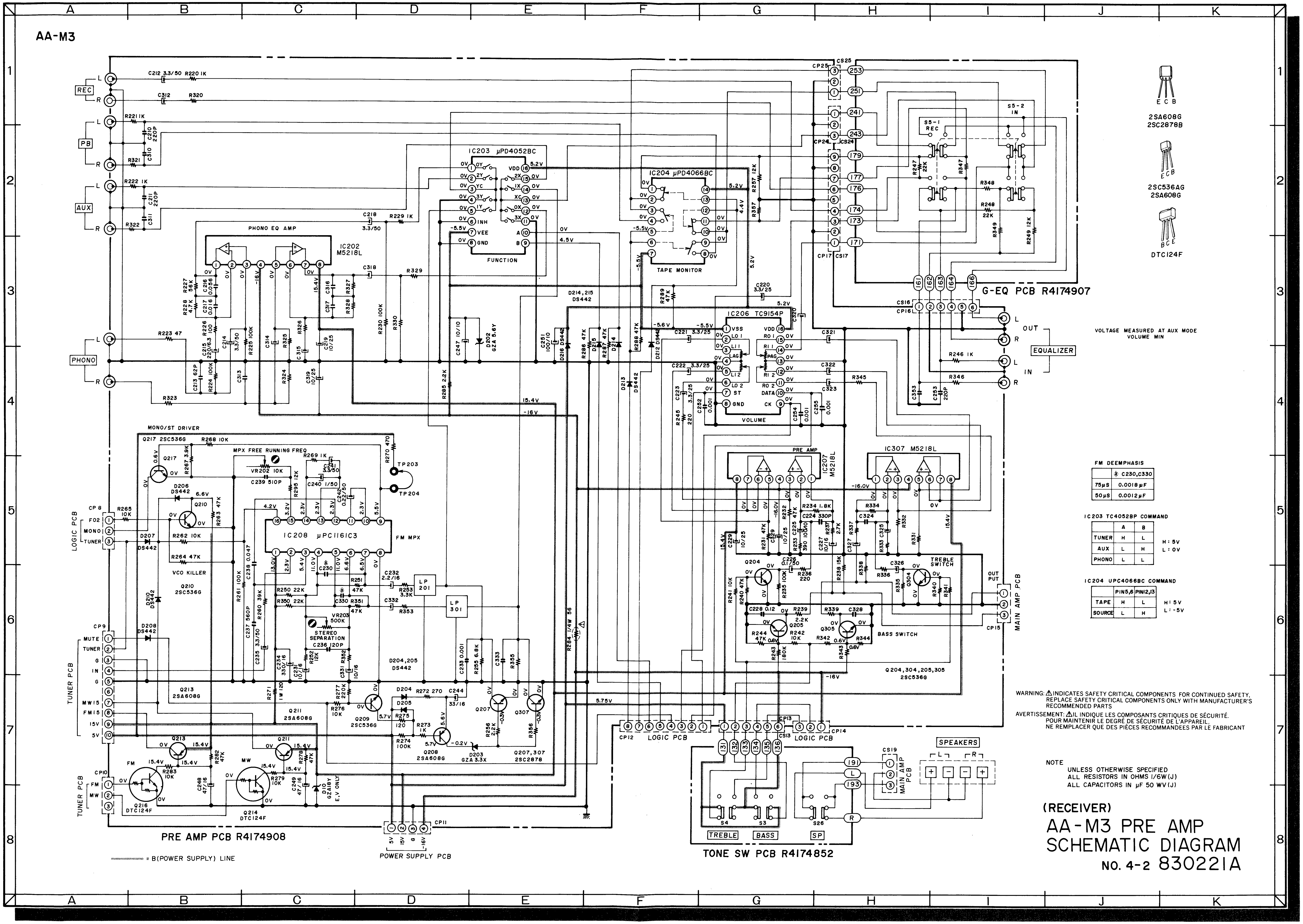
WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VOLTAGE MEASURED AT AUX MODE
VOLUME MIN

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)
POWER TRANSFORMER IS DIFFERENT
ACCORDING TO AREA

(RECEIVER)
AA-M3
MAIN AMP & POWER
SCHEMATIC DIAGRAM
NO.4-1 830220A


AA-M3
REC
PB
AUX
PHONO
PHONO EQ AMP
IC202 M5218L
IC203 µPD4052BC
FUNCTION
IC204 µPD4066BC
TAPE MONITOR
IC206 TC9154P
VOLUME
G-EQ PCB R4174907
OUT
IN
EQUALIZER
2SA608G
2SC2878B
2SC536AG
2SA608G
DTC124F
MONO/ST DRIVER
MPX FREE RUNNING FREQ
IC208 µPC1161C3
FM MPX
VCO KILLER
STEREO SEPARATION
PRE AMP
IC207 M5218L
IC307 M5218L
TREBLE SWITCH
BASS SWITCH
LOGIC PCB
TUNER PCB
MAIN AMP PCB
SPEAKERS
TREBLE
BASS
SP
PRE AMP PCB R4174908
TONE SW PCB R4174852
POWER SUPPLY PCB
= B(POWER SUPPLY) LINE

VOLTAGE MEASURED AT AUX MODE
VOLUME MIN

FM DEEMPHASIS

| | ※ C230,C330 |
|---|---|
| 75µS | 0.0018µF |
| 50µS | 0.0012µF |

IC203 TC4052BP COMMAND

| | A | B |
|---|---|---|
| TUNER | H | L |
| AUX | L | H |
| PHONO | L | L |

H : 5V
L : 0V

IC204 UPC4066BC COMMAND

| | PIN5,6 | PIN12,13 |
|---|---|---|
| TAPE | H | L |
| SOURCE | L | H |

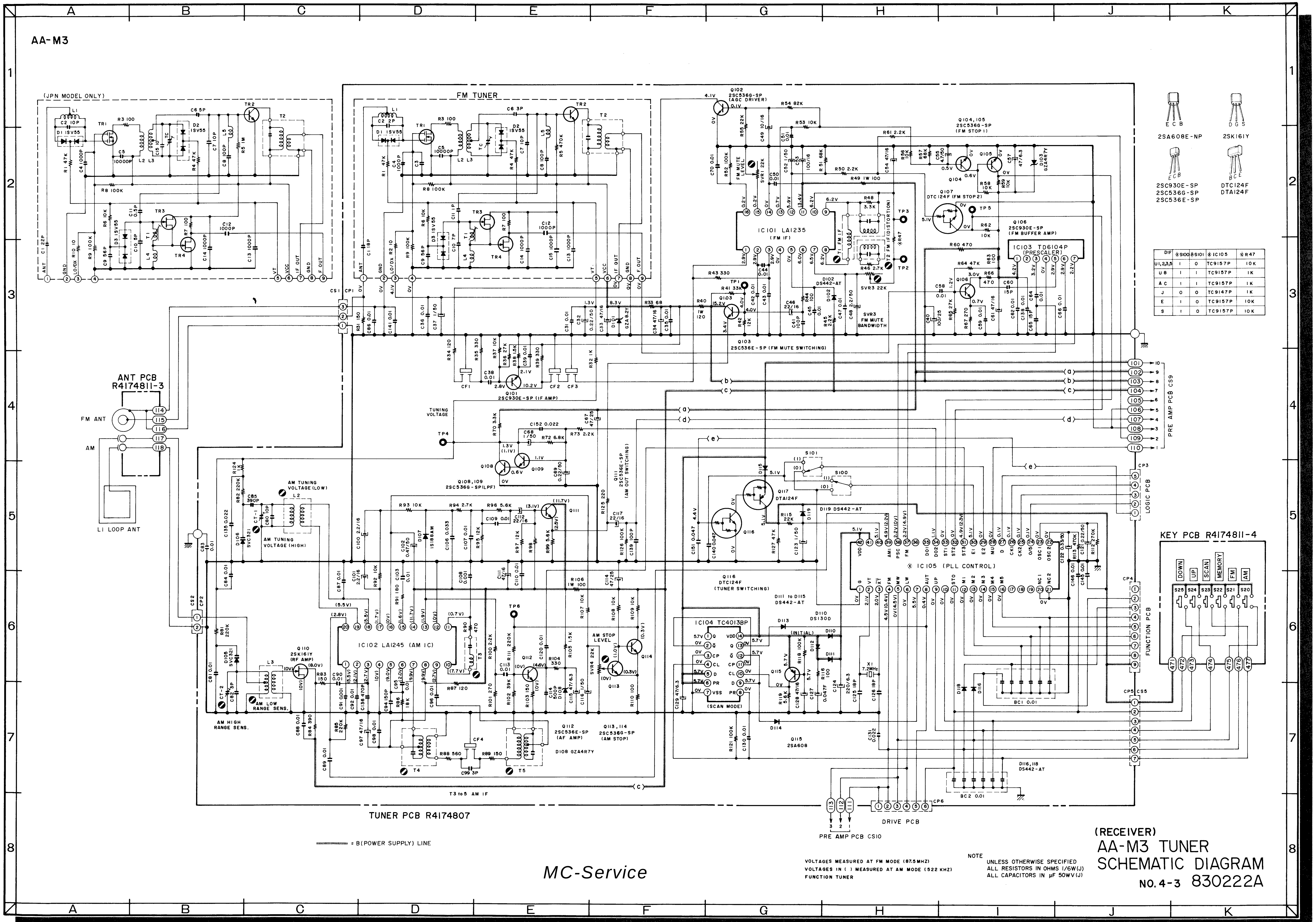
H : 5V
L : -5V

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN µF 50 WV(J)

(RECEIVER)
# AA-M3 PRE AMP SCHEMATIC DIAGRAM
NO. 4-2 830221A


AA-M3
(JPN MODEL ONLY)
FM TUNER
ANT PCB R4174811-3
FM ANT
AM
L1 LOOP ANT
IC101 LA1235 (FM IF)
IC102 LA1245 (AM IC)
IC103 TD6104P (PRESCALER)
IC104 TC4013BP
※ IC105 (PLL CONTROL)
Q101 2SC930E-SP (IF AMP)
Q102 2SC536G-SP (AGC DRIVER)
Q103 2SC536E-SP (FM MUTE SWITCHING)
Q104, 105 2SC536G-SP (FM STOP 1)
Q106 2SC930E-SP (FM BUFFER AMP)
Q107 DTC124F (FM STOP 2)
Q108, 109 2SC536G-SP (LPF)
Q110 2SK161Y (RF AMP)
Q111 2SC536E-SP (AM OUT SWITCHING)
Q112 2SC536E-SP (AF AMP)
Q113, 114 2SC536G-SP (AM STOP)
Q115 2SA608
Q116 DTC124F (TUNER SWITCHING)
Q117 DTA124F
D111 to D115 DS442-AT
D116, 118 DS442-AT
D108 GZA4R7Y
SVR1 FM MUTE LEVEL
SVR3 FM MUTE BANDWIDTH
SVR4 AM STOP LEVEL
AM TUNING VOLTAGE (LOW)
AM TUNING VOLTAGE (HIGH)
AM LOW RANGE SENS.
AM HIGH RANGE SENS.
TUNING VOLTAGE
T3 to 5 AM IF
(SCAN MODE)
(INITIAL)
X1 7.2MHz
BC1 0.01
BC2 0.01
TP1
TP2
TP3
TP4
TP5
TP6
S100
S101
PRE AMP PCB CS9
LOGIC PCB
FUNCTION PCB
KEY PCB R4174811-4
DOWN
UP
SCAN
MEMORY
FM
AM
TUNER PCB R4174807
DRIVE PCB
PRE AMP PCB CS10
2SA608E-NP
2SK161Y
2SC930E-SP
2SC536G-SP
2SC536E-SP
DTC124F
DTA124F
ECB
DGS
= B(POWER SUPPLY) LINE
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8

| DIF | ※S100 | ※S101 | ※IC105 | ※R47 |
|---|---|---|---|---|
| U1,2,3,5 | 1 | 0 | TC9157P | 10K |
| U8 | 1 | 1 | TC9157P | 1K |
| AC | 1 | 1 | TC9157P | 1K |
| J | 0 | 0 | TC9147P | 1K |
| E | 1 | 0 | TC9157P | 10K |
| S | 1 | 0 | TC9157P | 10K |

VOLTAGES MEASURED AT FM MODE (87.5MHZ)
VOLTAGES IN ( ) MEASURED AT AM MODE (522 KHZ)
FUNCTION TUNER

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)

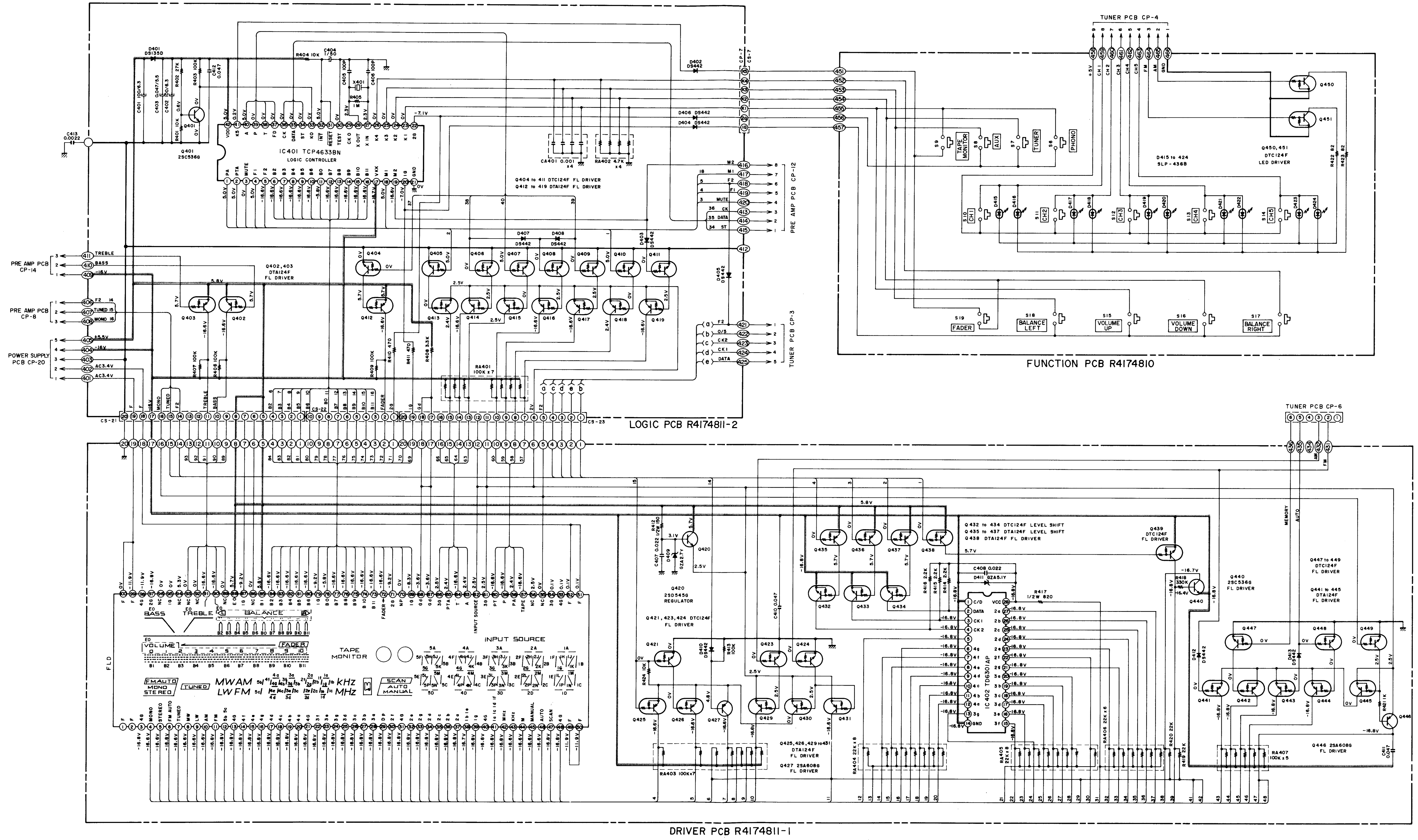
*MC-Service*

**(RECEIVER)**

# AA-M3 TUNER
# SCHEMATIC DIAGRAM

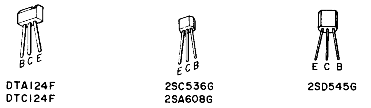
**NO. 4-3** 830222A

AA-M3



IC401 TCP4633BN
LOGIC CONTROLLER
Q401 2SC536G
D401 DS135D
Q402,403 DTA124F FL DRIVER
Q404 to 411 DTC124F FL DRIVER
Q412 to 419 DTA124F FL DRIVER
CA401 0.001 x4
RA402 4.7K x4
RA401 100K x7
PRE AMP PCB CP-14
TREBLE
BASS
PRE AMP PCB CP-8
TUNED
MONO
POWER SUPPLY PCB CP-20
PRE AMP PCB CP-12
MUTE
TUNER PCB CP-3
DATA
LOGIC PCB R4174811-2
CS-21
CS-22
CS-23
TUNER PCB CP-4
Q450
Q451
Q450,451 DTC124F LED DRIVER
D415 to 424 SLP-436B
TAPE MONITOR
AUX
TUNER
PHONO
CH1
CH2
CH3
CH4
CH5
S19 FADER
S18 BALANCE LEFT
S15 VOLUME UP
S16 VOLUME DOWN
S17 BALANCE RIGHT
FUNCTION PCB R4174810
TUNER PCB CP-6
MEMORY
AUTO
FLD
BASS
TREBLE
BALANCE
VOLUME
FADER
TAPE MONITOR
INPUT SOURCE
FM AUTO
MONO
STEREO
TUNED
MW AM
LW FM
kHz
MHz
SCAN
AUTO
MANUAL
Q420 2SD545G REGULATOR
Q421,423,424 DTC124F FL DRIVER
Q432 to 434 DTC124F LEVEL SHIFT
Q435 to 437 DTA124F LEVEL SHIFT
Q438 DTA124F FL DRIVER
Q439 DTC124F FL DRIVER
IC402 TD62301AP
Q425,426,429 to 431 DTA124F FL DRIVER
Q427 2SA608G FL DRIVER
RA403 100K x7
Q440 2SC536G FL DRIVER
Q447 to 449 DTC124F FL DRIVER
Q441 to 445 DTA124F FL DRIVER
Q446 2SA608G FL DRIVER
RA407 100K x5
DRIVER PCB R4174811-1

═══ = B(POWER SUPPLY) LINE



DTA124F
DTC124F

2SC536G
2SA608G

2SD545G

MC-Service

VOLTAGE MEASURED AT AUX MODE
VOLUME MIN

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN µF 50WV(J)

(RECEIVER)
AA-M3
DISPLAY & FUNCTION
SCHEMATIC DIAGRAM
NO.4-4 830223A